TO STUDY READMISSION RATES AND EARLY COMPLICATIONS IN PATIENTS UNDERGOING TOTAL KNEE ARTHOPLASTY

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Dedicated

To

My family

&

Teachers

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Dr.Tushar jethi

ABBREVIATIONS

ASA	American Society Of Anesthesiologists
DVT	Deep Vein Thrombosis
DOS	Day Of Surgery
ESR	Erythrocyte Sedimentation Rate
LOS	Length Of Stay
LMWH	Low Molecular Weight Heparin
IL	Interleukin
MRI	Magnetic Resonance Imaging
NSAIDS	Non-Steroidal Anti-Inflammatory Drugs
OA	Osteoarthritis
ORIF	Open Reduction And Internal Fixation
PE	Pulmonary Embolism
PRBC	Packed Red Blood Cell
PRE-OP	Pre-Operatively
POST-OP	Postoperatively
RTT	Return To Theatre
RA	Rheumatoid Arthritis
RNA	Ribonucleic Acid
TNF	*Tumor Necrosis Factor*
THA	Total Hip Arthroplasty
TKA	Total Knee Arthroplasty
TJA	Total Joint Arthroplasty
UTI	Urinary Tract Infection
VAC	Vacuum Assisted Closure

ABSTRACT

Introduction: There is an increased trend towards shorter length of stay and TKA in patients with higher risk profile. Readmission rate may be higher in these patients. Readmission rates are calculated at 30 days and 90 days and are indicator of efficacy of health care provided during TKA.

Aim of Study: To calculate rate of readmission in patients undergoing total knee arthroplasty, to know the early complications in these patients and to analyze the causes of readmission in patients after TKA at 30 and 90 days postoperatively.

Materials & methods: This is a prospective and retrospective study of 633 patients who underwent TKA in this hospital between 1 January 2017, and 28 February 2022. Out of 633 patients, 28 were not contactable, leaving 609 who met the inclusion criteria**.** Both inpatient and outpatient hospital records were retrieved and observations were noted down in the performas.

Results: Following TKA, the 30-day and 90-day readmission rates were determined to be 1.1% (n = 7) and 1.8% (n = 11) respectively. The unplanned visit rate at first 30 days following TKA was 2.6% (n=16) and at 90 days was 4.6% (n=28). At 90 days, the unplanned readmission rate was 1.4% (n = 9). Reasons for readmissions due to medical reasons were 27.2% (n = 3) and due to surgical reasons 72.7% (n = 8). Unplanned readmissions and visits within 90 days of follow-up did not substantially differ by age group (p = 0.922), BMI (p = 0.633), unilateral versus bilateral TKA (p = 0.696), or patient comorbidity status (p = 0.171 and 0.813, respectively). Reoperation rates after TKA were 0.66 (n = 4) percent at 30 days and 1.15% (n = 8) at 90 days, respectively. Average length of stay in our study was 6.53 days.

Conclusion: Our study reported low readmission rate following TKA. There was no significant correlation between readmission rate and patient factors such as age, BMI and Co-morbidity status.

Keywords: TKA, Length of Stay, Readmission Rate

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INTRODUCTION

Osteoarthritis is a relatively common condition as well as an important issue for both the individual and society, affecting approximately 10% of the general population above the age of 55 years. [1] It Impact on public health continues to grow due to the aging population, the rising prevalence of obesity and the lack of definitive treatments to prevent the progress of the disease. [2]

Traditionally, it has been considered a disease of articular cartilage. The current concept holds that osteoarthritis involves the entire joint organ, including the subchondral bone, menisci, ligaments, periarticular muscle, capsule, and synovium. [3]

Knee Osteoarthritis (OA) is a chronic degenerative disorder of multifactorial etiology characterized by the loss of articular cartilage, hypertrophy of bone at the margins, subchondral sclerosis, and range of biochemical and morphological alterations of the synovial membrane and joint capsule. [4]

However, osteoarthritis is difficult to define, and a better understanding of its pathophysiology is required. All forms of osteoarthritis and related disorders have in common a loss of cartilage associated with bone features such as osteophytes and subchondral bone sclerosis. [5]

Epidemiology of Osteoarthritis –

Among the chronic rheumatic diseases, knee osteoarthritis (OA) is the most prevalent and is a leading cause of pain and disability in most countries worldwide. Its prevalence increases with age and generally affects women more frequently than men. OA is strongly associated with aging and heavy physical occupational activity. [6]

Worldwide disease estimates show that 9.6% of men and 18% of women of 60 or older probably have symptomatic osteoarthritis.[1] In India, Osteoarthritis is the second most common rheumatologic problem and, the most frequent joint disease with a prevalence of 22% to 39%. Nearly, 45% of women over the age of 65 years have symptoms while radiological evidence is found in 70% of those over 65 years. [7]

Pathology of Osteoarthritis-

Although the cardinal pathologic feature of O.A. is a progressive loss of articular cartilage, O.A. is not a disease of only the cartilage but a disease of an organ, the synovial joint in which all of the tissues are affected, the subchondral bone, synovium, meniscus, ligaments, and supporting neuromuscular apparatus as well as the cartilage. The pathological changes mainly occur in the articular cartilages, adjacent bones, and synovium. [8]

1. **Articular cartilage -** The regressive changes are most marked in the weight-bearing regions of articular cartilage. Initially, there is a loss of cartilaginous matrix (proteoglycans) resulting in progressive loss of normal metachromasia. This is followed by focal loss of chondrocytes forming clusters. Further progression of the process causes loosening, flaking, and fissuring of the articular cartilage resulting in the breaking off pieces of cartilage and exposing subchondral bone. Radio logically; this progressive loss of cartilage is apparent as narrowed joint space. The molecular mechanism of damage to the cartilage in OA appears to be the breakdown of collagen type II, probably IL-1, TNF, and nitric oxide. [9]

2. **Bone** - The denuded subchondral bone appears like polished ivory. There is the death of superficial osteocytes and increased osteoclastic activity causing rarefaction, microcyst formation,

and occasionally micro-fractures of the subjacent bone. These changes result in the remodelling of bone and changes in the shape of the joint surface leading to flattening and mushroom-like appearance of the articular end of the bone. The margins of the joints respond to cartilage damage by osteophytes or spur formation. These are cartilaginous outgrowths at the joint margins, which later get ossified. Osteophytes give the appearance of lipping of the affected joint. Loosened and fragmented osteophytes may form free “joint mice” or loose bodies. [10]

3. **Synovium** - Initially, there are no pathologic changes in the synovium but in advanced cases, there is low-grade chronic synovitis and villous hypertrophy. There may be some amount of synovial effusion associated with chronic synovitis. [10,11]

Risk Factors –

The relative importance of risk factors may vary for different joints and according to the stages of the disease. It is also difficult to make a distinction between single and clustered risk factors associated with the disease development or progression. [12]

The risk factors of OA may vary from person-to-person level, including age, Gender, Obesity, Genetics, Diet, Joint - level and according to the stages of the disease. [13] Still, it is difficult to make a distinction between single and clustered risk factors associated with the disease’s development or progression. There are certain important risk factors associated with OA are –

- **Person To person risk factor –**
    1. **Age:** Age is a major risk factor for arthritis. An increase in age is positively related to the risk of osteoarthritis. [14]

2. **Sex:** Osteoarthritis is more prevalent in females as compared to males. [15]

3. **Socio-economic status:** There is an increased risk of disease with lower socio-economic status. [16]

4. **Genetic Factor**: Heredity character is considered very strong in the development of osteoarthritis. Identification of genes associated with osteoarthritis can help to understand it further. Studies showed that micro-RNA miR-127-5p under-expression was observed in knee osteoarthritis and there was also an increased expression of MMP-13. [17]

5. **Obesity:** Obesity is observed as a major factor in all cases. Obesity increases the osteoarthritis risk in both the knee and hand. [18]

6. **Nutrition and Vitamin:** Diet is directly linked to obesity and has an impact on aging that's why important role in osteoarthritis. Diet low in vitamin D and Vitamin C is also a possible risk for knee osteoarthritis. It is also shown in a study that vitamin K is also associated with osteoarthritis and women having low plasma PK were more prone to the progression of articular cartilage and meniscus damage. [19]

7. **Bone mass and Bone mass:** High bone mass is directly linked with the osteoarthritis of hip and knee and high bone mass is associated with bone sclerosis so hypertrophic phenotype will be suggested. [16,20]

- **Joint associated Risk factor –**

1. **Injury:** Injury is one of the most important risks for osteoarthritis, especially for knee-causing meniscal damage, rupture of the anterior cruciate ligament, or direct injury of articular cartilage. Ina study, knee osteoarthritis was high among patients with constructed cruciate ligament injuries. Occupational knee osteoarthritis and previous history of knee injury are the two most important factors. Patients with reconstructed cruciate ligaments must manage weight and avoid excessive loading to remain protected from osteoarthritis. [21,22]

2. **Muscle Mass and Muscle strength**: Muscle weakness may cause osteoarthritis. The specific role of muscle mass and muscle strength is still unclear. Women with more fat in intramuscular areas were found to have pain. [23]

3. **Joint load and alignment**: Knee alignment is the main prediction sign for osteoarthritis. Most of the literature suggests knee alignment is very important regarding osteoarthritis. But still, the findings are not regular. [24]

4. **Occupation and Activities**: Previous studies showed that occupations involved in extreme pressure and joint activity are linked with osteoarthritis while moderate activity is not.[25]

5. **Other joint-level risks:** Leg length inequality was also reported to have some link but more study on it is needed. Crepitus in women was associated with osteoarthritis. The infrapatellar fat pad was also significantly and beneficially associated with knee osteoarthritis. [26]

Signs and symptoms of osteoarthritis [27] –

- **Signs –**
    - Joint (hard tissue) enlargement
    - Limitation of motion
    - Altered gait.
    - Tenderness
    - Deformity
    - Instability
    - Crepitus

- **Symptoms –**
    - Pain
    - Weakness
    - Altered function.
    - Stiffness
    - Grinding/clicking
    - Swelling
    - Instability/buckling

Diagnosis –

- According to the American College of Rheumatology criteria for the diagnosis of knee osteoarthritis, Diagnosis can be made based on history, clinical features, and laboratory findings.

- Using history and clinical examination and laboratory findings

- Pain in the knee and 5 of the following can diagnose knee OA –
    - Age >50 years
    - Morning stiffness <30 minutes

- Crepitus on active motions
- Bony enlargement
- No palpable warmth of synovium
- ESR <40 mm/h
- Rheumatoid Factor <1/40
- Synovial fluid signs of osteoarthritis

- ♦ However, confirmation of OA or determining the extent of joint involvement may require the performance of radiography or MRI examinations. [28]

Treatment –

There is no cure for the treatment of OA and most treatments aimed to manage pain and movement restriction. Optimal management of patients with knee OA requires a combination of non-pharmacological, pharmacological, surgery, and arthroscopic debridement and lavage modalities of therapy. [29] TKR is “the gold standard” and is one of the most common and successful surgical interventions, providing substantial relief from pain and improvement in functional disability in patients with knee arthritis. TKR is a surgical procedure for re-surfacing the damaged knee with an artificial joint or prosthesis which principal goals of TKA are to alleviate pain and restore full function at the knee joint. [30]

Complications occurring after TKA include thromboembolism which is one of the most significant complications after TKA is the development of deep venous thrombosis (DVT), possibly resulting in life-threatening pulmonary embolism (PE) whereas Infection is one of the most dreaded complications affecting TKA patients, with reported frequencies of 2% to 3% in several large series. Complications like patellofemoral complications which include patellofemoral instability, patellar fracture, patellar component failure, patellar component

loosening, patellar clunk syndrome, and extensor mechanism rupture. Neurovascular complications like arterial compromise after TKA is a rare but devastating complication that occurs in 0.03% to 0.2% of patients, with 25% resulting in amputation. Periprosthetic fractures like supracondylar fractures of the femur occur infrequently after TKA (0.3% to 2%). [31]

As there is an increased rate of patients undergoing total knee arthroplasty, readmission rate has increased, Studying the risk factors helps us identify different preventable causes of readmission in total knee arthroplasty. In a population of TKA recipients, an understanding of risk factors for readmission following joint arthroplasty helps clinicians to better understand the postoperative course of their patients. Knowing potential risks which require specific mitigation and how to identify patients with the highest risk of readmission, will improve the effectiveness and efficiency of care. [32]

Unplanned readmission creates a large burden for the healthcare system and is detrimental to the patient, especially when patient needs surgical intervention. [53]

The 30-day readmission rates for hospitals are defined as hospital admissions within 30 days of the initial discharge, excluding patients who stayed less than 24 hours. These rates have reached financially unsustainable levels in many major hospitals. A 1% rise in hospital readmission rates is linked to an average 1.2% increase in non-reimbursable hospital expenses; this has a considerable impact on health care costs. [34]

Causes for readmission tend to be either medical or surgical**.** Early (0–30 days) readmissions are the result of medical causes in 40% of

cases and surgical causes in 60% of cases. The most common medical-related reasons reported for readmission are atrial fibrillation, myocardial infarction, and pneumonia. The most common surgical-related reasons for readmission are SSI and cellulitis. Late readmissions (61–90 days) are predominantly surgical-related with most readmissions being for the treatment of arthrofibrosis. [33]

Postsurgical and post-traumatic infections are among the leading causes of readmission to the hospital after TKA, even though infection rates post-surgery following TKA are quite low (0.65% in the hospital and 0.41% after discharge). Following TKA surgery, DVT rates in patients have been estimated to be around 0.45%. Even though this percentage might seem low, individuals who do develop DVT have mortality rates that are noticeably higher (0.4% for TKA). Patients who have experienced a transient ischemic stroke or a cerebrovascular accident in the past, those undergoing a revision TKA, and those who spent more time in the hospital are at an increased risk of readmission.

A 30 day hospital readmission is outcome negative associated with complications that can be mitigated by identifying associated risk factors. [35]

The largest increases for readmittance to the hospital have been found in the first 30 days after surgery, indicating that patients are at the greatest risk for being readmitted to the hospital in the early phase of post-surgery. A 5%–8% readmission rate of patients after TKA that is reported in the literature is concerning. A readmission may be an indication that patients were not thoroughly prepared for discharge after surgery and that they may not have fully understood discharge instructions and guidelines for the postoperative phase that could have supported better post-surgical outcomes. [36]

When compared to the number of readmissions from day 31 to day 90, more 30-day readmissions have been reported as problems related to surgery; 71 percent of the issues during the first 30 days being connected to surgery, as opposed to 47 percent of the remaining 60 days in a 90-day episode. After completing joint replacement, a 90-day is preferable time period for capturing readmissions due to surgery. [37]

There is a prominent trend towards reduced hospital length of stay (LOS) in TKA. There has also been increased utilization of TKA surgery on an outpatient basis. [38] Low LOS is associated with higher 30-day readmission rates, and following an index surgery, LOS > 1 increases the risk of a 90-day readmission [39] but has not been proven uniformly through our literature. There is limited literature associated with this topic in the Indian population and this requires further research.

AIMS AND OBJECTIVES

AIM OF STUDY:

1) To study pattern of readmission in patients who undergoing primary TKA.

2) To study complications in patients undergoing primary TKA

REVIEW OF LITERATURE

Apuzzo et al. conducted a study and observed that in previous studies on readmission after total knee arthroplasty (TKA), there was a lack of information about the reasons for readmission and the lack of stratification of readmissions based on co-morbidities. They conducted a study on 377705 patients undergoing primary TKA in the period from 1997 to 2014 and found that there were a total of 22076 readmissions within 30 days after TKA. The all-cause readmission rate was calculated and found to be 5.8%. An estimated 18% of patients are readmitted to a hospital other than the one at which they had the surgery, and patients have different risks based on their co-morbidity profile. The purpose of their study was to use a large database to determine (1) the frequency and (2) the risk factors for readmissions for all causes or procedure-specific complications within 30 days after TKA, as well as (3) the association between hospital volumes and readmission rates. The potential risk factors for readmission that they evaluated included demographic characteristics, co-morbidities, and complications during the index procedure, length of the hospital stay, and discharge disposition, regardless of whether patients had undergone the TKA for osteoarthritis, inflammatory arthritis, or osteonecrosis. In contrast to all-cause readmissions, the risk of TKA-specific readmissions was decreased by a discharge to a rehabilitation centre or "other" facility. Bilateral surgery was a risk factor for all-cause readmissions. The Charlson co-morbidity index or exhauster co-morbidity measure is used to calculate TKA-specific readmissions. [40]

Workman et al. conducted a study on unplanned readmission after total knee arthroplasty (TKA). This study included 7,482 patients who underwent primary TKA at a teaching community hospital between 2011 and 2016 to identify the causes, demographics, and medical comorbid risk factors that resulted in 30-day readmission. Out of 7482

patients, 210 had undergone unplanned readmissions, with the readmission rate being 2.8%. The most common reasons for readmission in their study were gastrointestinal bleed (9.05%) and periprosthetic infection (8.10%). The risk of 30-day readmission was significantly correlated with age 65 and older, male, length of stay > 3 days, and discharge to rehab. Chronic airway disease and obesity were significant risk factors. Their study suggested that a higher Charlson co-morbidity index was not a predictor of time to readmission within 30 days after TKA. [41]

James R. Bostock et al. conducted a study on patients in which they observed a worldwide temporal decline in 30- and 90-day mortality following TKA. Although causality cannot be determined, a possible explanation for this decline may be related to improvements in health care over the past 20 years. For this trend towards decreasing mortality to continue, healthcare providers will need to address the major cause of early postoperative mortality, identified in their study as cardiovascular disease. They also identified that there is an ongoing worldwide temporal decline in mortality following total knee arthroplasty. Improved patient selection, peri-operative care, and a healthy population effect may account for this observation. Efforts to further reduce mortality should be targeted primarily at reducing cardiovascular events following total knee arthroplasty. [42]

Adam M. Ali et al. conducted a study on 566323 procedures in the United Kingdom between 2006 and 2016. In their study, there were 37195 readmissions (all causes), and the readmission rate was found to be 6.0%, out of which 20,202 were surgical readmissions (3.3%) and there were 2899 (0.5%) RTTs. Lower socioeconomic status was found to be associated with an increased risk of readmission for both all-cause and surgical readmission. Unicompartmental arthroplasty was associated with a significantly lower risk of all types of readmissions

when compared with TKA, with the effect being most pronounced for surgical readmissions. The number of emergency admissions in the preceding 12 months for any reason was a strong predictor of all types of readmissions, being most pronounced for all-cause readmission. RTT during the index admission was a strong predictor of all types of readmissions, including readmissions requiring further RTT. The risk of RTT readmission did not differ by primary diagnosis. Patients with rheumatoid arthritis had a lower risk of all-cause and surgical readmission. Patients with post-traumatic arthritis had an increased risk of surgical readmission. For all-cause and surgical readmission, a shorter length of stay than 2 days was associated with a significant increase in readmission risk. [43]

Daniel Gould et al. conducted a study and observed the impact of specific medical co-morbidities on increasing the risk of 30-day readmission following TKA. The following co-morbidities are strongly associated with readmission: bleeding disorders, diabetes, CKD and dialysis, chronic immunosuppressant use and a history of cancer. Other significant co-morbidities include dementia, depression, hematological (coagulopathy and anemia), cardiovascular (atrial fibrillation, cardiovascular disease, coronary artery disease, and congestive heart failure), respiratory (chronic obstructive pulmonary disease), liver diseases and cerebrovascular accidents or transient ischemic attacks (but only in revision TKA patients). The influence of variation in sex, age, and BMI each demonstrates a more complex pattern. Further research into the difference in readmission risk when revision TKA is compared to primary TKA and bilateral TKA compared to unilateral TKA will clarify the impact of these factors. They had done a systematic review and meta-analysis, which were needed to quantify the impact of patient-related factors on readmission risk so clinicians could better understand their patients' likely postoperative course. This information is important for preoperative decision-making, enabling clinicians to optimize treatment plans for patients and adequately

prepare for their postoperative recovery to provide the most cost-effective and clinically effective care. [44]

Claudia Fischer et al. conducted a systemic review from January 2001 to May 2013 and included 102 articles in their study. They observed the methodological aspects that need to be considered when using the readmission rate as a measure of the quality of hospital care for external purposes. They found that the validity of readmission rates as a quality indicator was influenced by the clinical process, the indicator definition, the extent of case-mix correction, the effect of competing outcomes, and the reliability of the data. Ignoring or poorly handling these aspects may lead to a biased estimation of the overall readmission rate and a biased comparison of readmission rates between hospitals. As a result of the variance in handling these methodological threats, studies on the validity of readmission rates as a quality indicator reach conflicting conclusions. They conclude that, given the limitations of readmission rates, they need to be used with caution as a measure of in-hospital quality, even more so when used as a tool for a pay-for-performance scheme. Some of the discussed factors concerning the readmission rate could be improved in principle by investing resources in an accurate data registry and refinements to the indicator description. Another option would be to flag planned admissions, which are a part of the treatment plan or due to cancelled procedures, to measure just the quality-of-care-related readmissions.[45]

Nicolas S. Piuzzi et al. conducted a study. A prospective cohort of 4,509 patients underwent total knee arthroplasty between January 1, 2016 and September 30, 2017 with the assistance of 21 surgeons at 4 institutions in their health system and discovered that patient-related risk factors were significant predictors of hospital stay length. A longer length of stay was predicted by older age, a higher body mass index

(BMI), a higher Charlson co-morbidity index and female sex. Despite patient-related factors such as age, sex, and co-morbidities providing substantial predictive value for the length of stay after total knee arthroplasty, the main driving predictors of the single-day length of stay after total knee arthroplasty were procedure- or structural-related factors, including hospital site and surgeons. Understanding the risk factors that affect outcomes after total knee arthroplasty provides the opportunity to influence and potentially modify them favorably to optimize care. [46]

William W. Schairer, BA, et al. conducted a study on patients who underwent total knee arthroplasty (TKA) and related interventions such as revision TKA and the treatment for infected TKAs between the time periods of 2005 and 2011. The purposes measured were (1) the unplanned hospital readmission rate in primary TKA and revision TKA, including antibiotic-spacer staged revision TKA to treat the infection, (2) the medical and surgical causes of readmission, and (3) risk factors associated with unplanned hospital readmission. The all-cause 90-day readmission rate was 13% (n = 176 of 1408). Six patients in the primary TKA group (0.6%) had a planned readmission for a contralateral primary TKA The cause of readmission was surgical in 75% (n = 88 of 118) of patients, whereas 25% (n = 30 of 118) of readmissions were the result of medical causes. Most surgical causes were arthrofibrosis (28% [n = 25 of 88]), surgical site infection (SSI) (18% [n = 16 of 88]), and cellulitis (16% [n = 14 of 88]).They observed that hospital readmission rates were used to measure hospital performance, but risk factors (both medical and surgical) for readmission after TKA, revision TKA, and treatment for the infected TKAs had not been well characterized in their study. [47]

Victoria Avram et al. conducted a study with hypothesis that given institutional pressures to reduce hospital length of stay (LOS), that

"failure to cope" would be a significant factor for readmission following total joint arthroplasty (TJA). In this study, a retrospective review of 4288 TJA patients was conducted to determine readmission rates and reasons for readmission within 30 days of discharge. Ninety-five patients were readmitted within the first 30 days, and the readmission rate was found to be 5.3%. Surgical site infection (23.2%) and cardiovascular events (16.8%) were the most common diagnoses. Four of the readmitted patients were readmitted for failure to cope, accounting for 0.1% of the sample. In multivariate analysis, increased age was a significant predictor of readmission. Contrary to their hypothesis, failure to cope was not a leading diagnosis for readmission; concerns remain that early discharge may, however, correlate with increased readmission rates. [48]

Nicholas Yohe et al. conducted a study on 12, 026 patients, out of which 422 (3.5%) experienced a major complication, 2316 (19.3%) experienced a minor complication, 2074 (17.2%) had a bleeding occurrence requiring transfusion, and 566 (4.7%) experienced an unplanned readmission. Thirty-eight (0.3%) deaths were recorded. There were no significant risk factors for major complications. Patients with the American Society of Anesthesiologists, patients older than 84 years, and patients receiving general anesthesia had increased risks of minor complications. Patients with a body mass index >30 and men had reduced rates of minor complications. An increased risk of unplanned readmission occurred in patients with chronic obstructive pulmonary disease and congestive heart failure. Patients with an ASA greater than 2 had an increased risk of death. Elderly patients undergoing TKA had high complications and readmission rates. In their study, they conveyed that surgeons should convey these increased risk factors and rates of complications in elective TKAs to their elderly patients and work with primary care physicians to mitigate these risks.[49]

Kirill Gromov et al. conducted a study on patients scheduled for THA or TKA at 2 participating hospitals who were screened for a potential day of surgery (DOS) discharge. Patients who met the DOS discharge criteria were sent home. Patients discharged on DOS were matched on preoperative characteristics using propensity scores to patients operated on at the same two departments with at least one overnight stay prior to the start of this study. All readmissions within 90 days were identified. It was possible to match 116 of 138 outpatients with 339 inpatient controls in their study. The median LOS in the control cohort was 2 days (1–9). The rate of readmission within the first 90 days of follow-up was 6% in outpatients and 4% in inpatients (control group). Readmissions occurred between postoperative days 2–48 and days 4–58 in the outpatient and control cohorts, respectively. They found no readmissions within the first 48 hours, and no readmissions were related to the DOS discharge. Readmission rates in DOS patients were comparable to those in matched patients with at least one overnight stay. With the selection criteria used, there may be no safety signal associated with same-day discharge. [50]

Gould et al. in 2021 conducted a systemic review and meta-analysis, including 69 studies for review. They discovered that 30-day hospital readmission is a negative outcome associated with complications that can be mitigated by identifying associated risk factors. They aimed to identify patient-related characteristics associated with unplanned 30-day readmission following TKA and to determine the size of the association between these risk factors and unplanned 30-day readmission. They searched MEDLINE and EMBASE from inception to September 8, 2020, for English-language articles. In their review, the estimated 30-day readmission rate for TKA ranges from 3% to 4.6%. Patients of interest were TKA recipients (primary and revision) compared for 30-day readmission to any institution, due to any cause, based on patient risk factors; case series were excluded. Two reviewers extracted data and performed a critical appraisal

independently. In-hospital complications during the index admission were the strongest risk factors for 30-day readmission in both primary and revision TKA patients, suggesting discharge planning should include closer post-discharge monitoring to prevent avoidable readmission. Further research could determine whether closer monitoring post-discharge would prevent unplanned but avoidable readmissions. Increased comorbidity burden correlated with increased risk, as did specific comorbidities. Body mass index was not strongly correlated with readmission risk. Demographic risk factors included low socioeconomic status, but the impact of age on readmission risk was less clear. These risk factors can also be included in predictive models for 30-day readmission in TKA patients to identify high-risk patients as part of risk reduction programs. [51]

Jorge Benito et al. conducted a study and demonstrated that an increased length of stay past 1 day when compared with 2, 3, or 4 days of hospital stay had an all-cause increase in 90-day readmissions. Average 90-day TJA readmission rates vary widely in the literature, ranging from 2.9% to 10.9% in THA and 3.5% to 15.6% in TKA. Infection-related and procedure-related complications, such as prosthetic dislocation or failure, seem to be the most common risk factors for readmission. age 50 or 80, body mass index (BMI) of 18.5 or 30, diabetes, coronary artery disease, high American Potential risk factors include the American Society Anesthesiologist (ASA) score, a history of a bleeding disorder or cancer, peri-operative transfusion, and a 5-day hospital stay. [52]

One such study by **Saucedo et al.** showed that higher 90-day readmission rates were correlated with longer LOS (5 days). Although these comorbid conditions play a possible role in readmission, another factor should be considered in patient outcomes. This may account for satisfaction, lifestyle, and compliance, which could pose answers to these readmissions. Unplanned readmission creates a large burden for

the healthcare system and is detrimental to the patient, especially when a return to the operating room is necessary. The results of this study demonstrate that greater in-hospital LOS past 1 day after primary TKA and THA increases the odds of 90-day readmission rates within the Medicare population, independent of the comorbidity index. [53]

MATERIALS AND METHODS

It was prospective and retrospective study including all the cases undergoing primary TKA from 1 Jan 2017 till 28th Feb 2022 with minimum follow up of 3 months.

SOURCE OF DATA

Patient was contacted by either telephone or by personal interview. Hospital in-patient and outpatient records were retrieved and performas were filled.

METHOD OF COLLECTION OF DATA

Data collection and methods: it was retrospective and prospective study with collection of data as per the Performa with consent from the patients who were admitted in the Orthopedics department, Dayanand Medical College and Hospital. Variables that were studied include:

- Time and reason of readmission
- length of stay
- Complications after TKA
- Hospital visits not requiring admission to the hospital

INCLUSION CRITERIA

- All patients undergoing primary TKA

EXCLUSION CRITERIA

- All patients undergoing revision TKA
- Patients not willing to participate in the study

Number of cases: From 1 January 2017 till 28th Feb 2022 qualifying the inclusion criteria

Outcome: Calculation of readmission rate at 30 days and 90 days

Statistical Analysis: Data was described in terms of range; mean ±standard deviation (± SD), median, frequencies (number of cases) and relative frequencies (percentages) as appropriate. All statistical calculations were done using (Statistical Package for the Social Science) SPSS 21version (SPSS Inc., Chicago, IL, USA) statistical program for Microsoft Windows

OBSERVATION AND RESULTS

The following observations were made from the data collected during the study on “To study readmission rates and early complications in patients undergoing total knee arthroplasty” in the department of Orthopedics, DMCH, Ludhiana. This study is a prospective as well as retrospective study conducted on a total of 633 patients who underwent TKA between times frame of 1 January 2017 till 28th Feb 2022 in this hospital. Out of 633 patients, 28 patients were not contacted, leaving 609 who met the inclusion criteria.

TABLE 1: DISTRIBUTION OF PATIENTS ACCORDING TO AGE

Age(yrs.)	No. Of Cases	Percentage (%)
<40	5	0.8
41-50	43	7.1
51-60	197	32.3
61-70	251	41.2
71-80	104	17.1
80&above	9	1.5
Total	609	100.0

The average age of patients in the study is 62.87 years and range 35-91 years.73.5 % of patients were between 51-70 years age group, 18.6% above 71-year age group and 7.9% below 50 years age.

FIGURE 1: DISTRIBUTION OF PATIENTS ACCORDING TO AGE

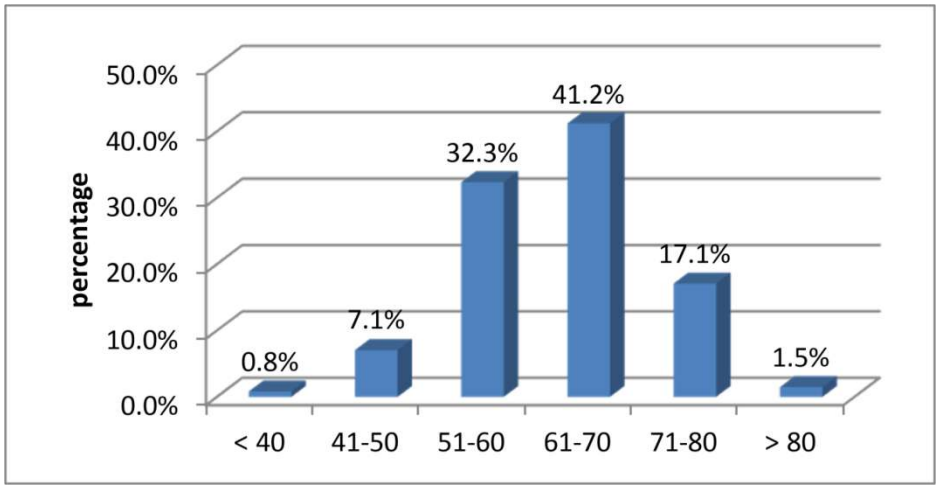

TABLE 2: DISTRIBUTION OF PATIENTS ACCORDING TO GENDER

Gender	No. of Cases	Percentage (%)
Female	420	69.0
Male	189	31.0
Total	609	100.0

69% of patients were females and 31% were males. The sex ratio in this study was notable, with females out numbering males.

FIGURE 2: DISTRIBUTION OF PATIENTS ACCORDING TO GENDER

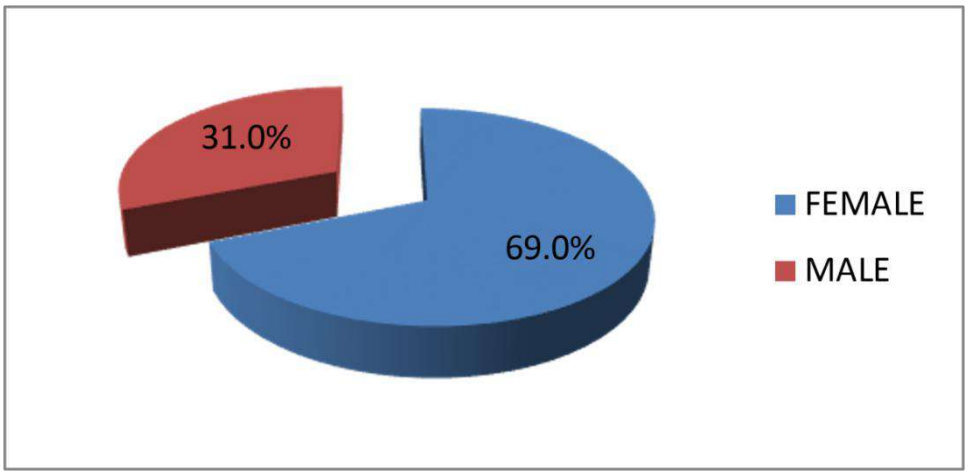

TABLE 3: DISTRIBUTION OF PATIENTS ACCORDING TO OCCUPATION

Occupation	No. of Cases	Percentage (%)
Housewife	286	47.0
Dependent	163	26.8
Retired	92	15.1
Farmer	40	6.6
Others	28	4.5
Total	609	100.0

Majority of the patients (47.0%) were housewives. (26.8%) were dependents, (15.1%) were retired individuals.

TABLE 4: DISTRIBUTION OF PATIENTS ACCORDING TO BMI

BMI	No. Of cases	Percentage (%)
<24.9 (normal)	249	40.8
25-29.9(overweight)	332	54.5
>30 (class 1 obese)	28	4.6
Total	609	100.0

Majority (54.5%) of the patients was overweight, 4.6% patients were class 1 obese, and rest had normal BMI. Range of BMI is (22 to 35.64) with mean BMI 26.7

FIGURE 3: DISTRIBUTION OF PATIENTS ACCORDING TO BMI

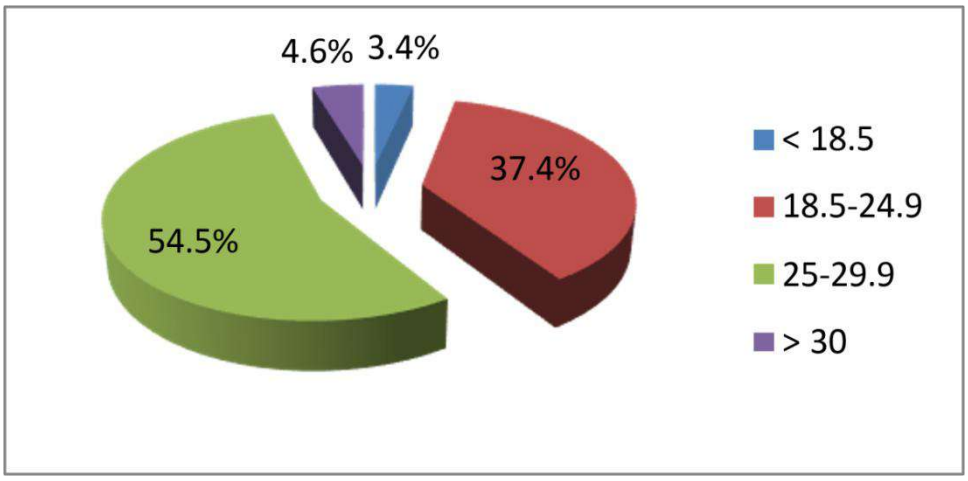

TABLE 5: DISTRIBUTION OF PATIENTS ACCORDING TO ETIOLOGY OF KNEE DEGENERATION

Diagnosis	No. Of cases	Percentage (%)
Osteoarthritis	593	97.4
Rheumatoid arthritis	16	2.6
Total	609	100.0

Out of the total patients who underwent TKA, 97.4% had osteoarthritis. Only 2.6% patients had rheumatoid arthritis.

TABLE 6: DISTRIBUTION OF PATIENTS ACCORDING TO THE SIDE OF PROPOSED TKA

Side of Proposed TKA	No. of Cases	Percentage (%)
Bilateral	304	49.9
Unilateral	305	50.1
Total	609	100.0

304 out of 609 patients underwent bilateral TKA. 305 patients under went unilateral TKA making it total of 913 operated knees.

TABLE 7: DISTRIBUTION OF PATIENTS ACCORDING TO DURATION OF COMPLAINTS

Duration of Complaints (in Years)	No. Of Cases	Percentage (%)
<1	3	0.5
1-2.0	26	4.3
2-5.0	168	27.6
5-10.0	239	39.2
>10	173	28.4
Total	609	100.0

Majority of patients undergoing TKA had complaints for 2-10 years (2-5 years: 27.6 and 5-10 years: 39.2 %). 4.8% patients had complaints for less than two years whereas 28.4% had complaints for more than ten years.

TABLE 8: DISTRIBUTION OF PATIENTS BASED ON CO- MORBIDITIES.

	No. of Cases	Percentage (%)
Hypertension	200	32.8
Diabetes mellitus	88	14.4
Coronary artery disease	27	4.4
Cancer	6	1.8
Hypothyroidism	15	2.46
Obesity	28	4.6
BPH	2	0.3
Bronchial asthma	2	0.3
COPD	1	0.15
CKD	1	0.15
Atrial fibrillation	1	0.15
Stroke	2	0.3
Parkinsonism	1	0.15
Seizure	1	0.15
Hep C positive	2	0.3
Others	6	1

57.8% (n=383) patients suffered from co-morbidities. Out of 609 patients, 200(32.8%) suffered from hypertension whereas the next most common co-morbidity was diabetes mellitus which was seen in 88 patients. 27 patients suffered from coronary artery disease and15patients suffered from hypothyroidism. Six patients in our study

group suffered from cancer. Two patients suffered from stroke. two patients had history of hepatitis C. Two patients had history of bronchial asthma. Two patients had benign prostrate hypertrophy. One patient was suffering from COPD, CKD, AF, seizure disorder, Parkinsonism respectively. Six patients have other co-morbidities.

FIGURE 4: DISTRIBUTION OF PATIENTS ACCORDING TO CO-MORBIDITIES

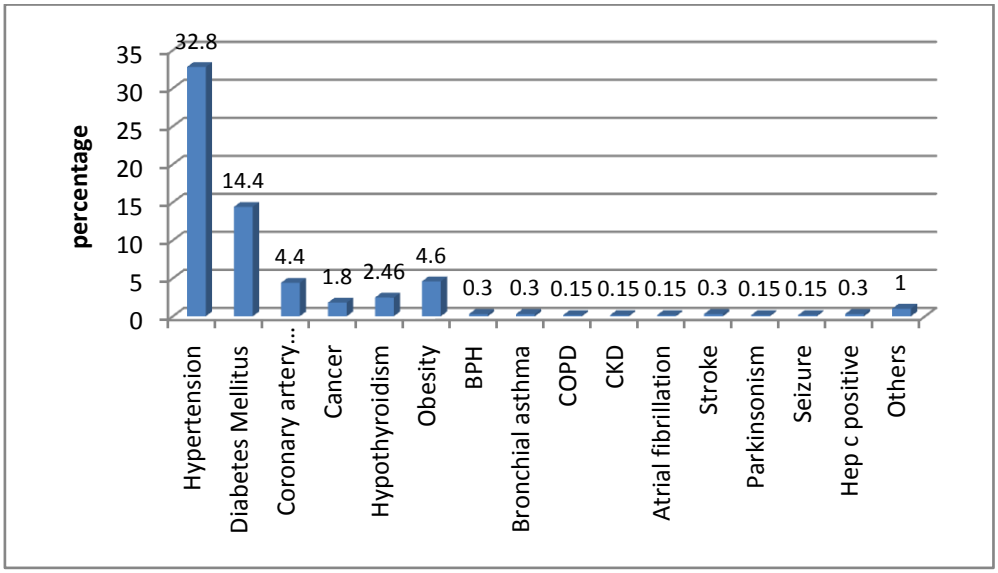

TABLE 9: DISTRIBUTION OF PATIENTS ACCORDING TO CHARLSON CO- MORBIDITY INDEX

	No. Of Cases	Percentage
0	310	50.9%
1	89	14.6%
2	92	15.1%
3	64	10.5%
4	39	6.4%
5	13	2.1%
6	2	0.3%
Total	609	100.0%

FIGURE 5: DISTRIBUTION OF PATIENTS ACCORDING TO CHARLSON CO-MORBIDITY INDEX

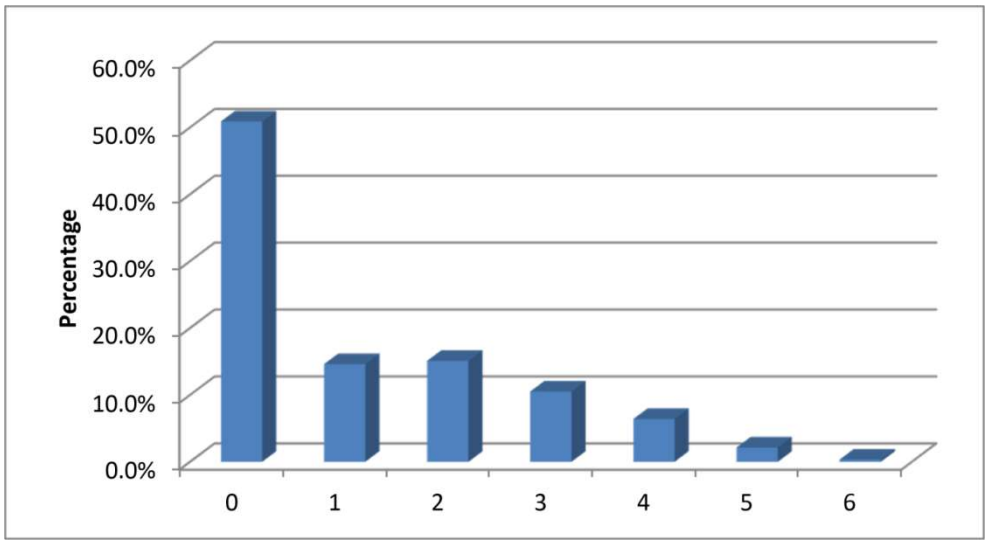

TABLE 10: DISTRIBUTION OF PATIENTS ACCORDING TO CHARLSON CO-MORBIDITY INDEX

Charlson Co-Morbidity Index	No. of Cases	Percentage (%)
<2	399	65.5
2-3.0	156	25.6
>4	54	8.9
Total	609	100.0

Majority of patients in our study group had Charlson co-morbidity scores from <2 (65.5%) indicating the mild severity of associated co-morbidity. Another (8.9 %) patients had scores >4 whereas (25.6%) had score 2-3.0.

FIGURE 6: DISTRIBUTION OF PATIENTS ACCORDING TO CHARLSON CO-MORBIDITY INDEX

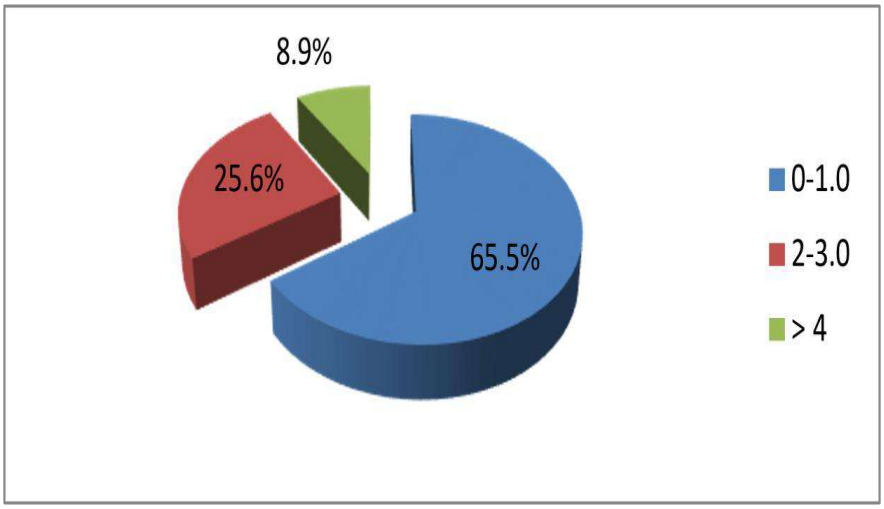

TABLE 11: DISTRIBUTION OF PATIENTS BASED ON LENGTH OF STAY.

Length of stay (Days)	No. Of Cases	Percentage (%)
6	297	48.8
7	306	50.2
8	4	0.7
10	1	0.2
13	1	0.2
Total	609	100.0

Most patients had seven days as their length of stay in hospital. Range of length of stay is six to thirteen days. Average length of stay was 6.53 days.

TABLE 12: DISTRIBUTION OF PATIENTS BASED ON UNPLANNED VISITS AFTER TKA ON 30 DAYS FOLLOW UP.

Unplanned visit after TKA within 30 days follow up	No. Of Cases	Percentage
No	593	97.4%
Yes	16	2.6%
Total	609	100.0%

Out of 28 unplanned visits in 90 days, 16 unplanned visits occurred in first 30 days of TKA. It comprised of 2.6% of total cases.

TABLE13: REASONS FOR UNPLANNED VISITS AT 30 DAYS FOLLOW UP.

Reason for unplanned visits within 30 days	No. of Cases	Percentage
Febrile illness	2	0.40%
UTI	2	0.40%
Neurological issues	1	0.20%
Lower back ache	1	0.20%
Post TKA pain	3	0.60%
Wound complications	5	1.00%
Other surgery related complications	2	0.40%

Out of 16 unplanned visits two had occurred because of febrile illness and two occurred because of urinary tract infection, one due to neurological issues, one due to lower back ache, two because of surgery related complications three due to post TKA pain and five happened because of wound complications.

TABLE 14: TABLE FOR RE ADMISSIONS AT 30 DAYS FOLLOWS UP.

		Unplanned visit after TKA within 30 days follow up		
		No	**Yes**	**Total**
Readmission	None	593	9	602
	Planned	0	0	0
	Unplanned	0	7	7
Total		593	16	609

Out of 16 unplanned visits there were seven unplanned readmissions, occurring in first 30 days of TKA. There was no planned readmission at 30 days. Total rate of readmission in first 30 days of the follow up was found out to be 1.1 %(n=7).Average length of stay in the TKA patients getting readmitted in first 30 days follow up was 6.86 days (range 1day to 15 days).Re-operation rate in first 30 days follow up after TKA was found out to be 0.66 % (n=4).

TABLE 15: TABLE FOR REASONS FOR RE ADMISSIONS WITHIN 30 DAYS FOLLOWS UP

Reasons for Readmissions within 30 days	No. of Cases	Percentage
Febrile illness	2	0.40%
Stroke	1	0.20%
Wound complications	4	0.80%

Out of seven unplanned readmissions two readmission was occurred due to febrile illness which were managed with oral antibiotics with packed red blood cells transfusion and intravenous antibiotics

respectively, one due to stroke for which anticoagulants and thrombolytic were given and four due to wound related complications which were managed with knee arthrotomy and lavage and debridement with VAC application. Out of seven unplanned readmissions three occurred due to medical reasons and four readmissions occurred due to surgical causes.

TABLE 16: TABLE FOR UNPLANNED RE ADMISSION WITHIN 30 DAYS OF FOLLOW UP

Patient S.no	**Cause**	**Reason**	**Time duration for readmission after surgery** (indays)	**Treatment given in hospital**	**Total Length of stay in hospital**	**Final status**
142	Erythema at surgical site	Surgical	30	Knee arthrotomy and lavage	1 day	Discharged
234	Discharge from surgical site	Surgical	15	Knee arthrotomy and lavage	1 day	Discharged
393	Discharge from surgical site	Surgical	30	Knee arthrotomy and lavage	5 days	Discharged
506	Bleeding from surgical site	Surgical	30	Debridement and vacuum assisted closure	15 days	Discharged
540	Febrile illness	Medical	3	Oral antibiotics and 1 PRBC transfused	1 day	Discharged
578	Febrile illness	Medical	30	Intravenous antibiotics	10 days	Discharged
619	Stroke	Medical	15	Anticoagulants and thrombolytics	15 days	Discharged

TABLE 17: TABLE FOR UNPLANNED VISITS WITHIN 90 DAYS AFTER TKA

Unplanned visits after TKA on 90 days follow up	No. Of Cases	Percentage
No	581	95.4%
Yes	28	4.6%
Total	609	100.0%

At 90 days follow up there were total 28 unplanned visits to the hospital, and rate of unplanned visits was found out to be 4.6%.

TABLE 18: TABLE FOR REASONS FOR UNPLANNED VISIT WITHIN 90 DAYS

Reasons for Unplanned visit within 90 days	No. of Cases	Percentage
Febrile illness	3	0.60%
UTI	3	0.60%
Neurological issues	2	0.40%
Generalized body weakness	1	0.20%
Lower back ache	2	0.40%
Soft tissue injury over knee	2	0.40%
Post TKA pain	7	1.40%
Wound complications	5	1.00%
Other surgery related complication	3	0.60%

Out of 28 unplanned visits three occurred because of febrile illness and three had urinary tract infection, two due to neurological issues, two due to lower back ache, one visit had occurred due to generalized body weakness and two due to soft tissue injury over knee, three because of surgery related complications, seven due to post TKA pain and five because of wound complications.

FIGURE 7: DISTRIBUTION OF PATIENTS ACCORDING TO REASONS FOR RE ADMISSIONS AT 30 DAYS AND 90 DAYS FOLLOW UP AFTER TKA.

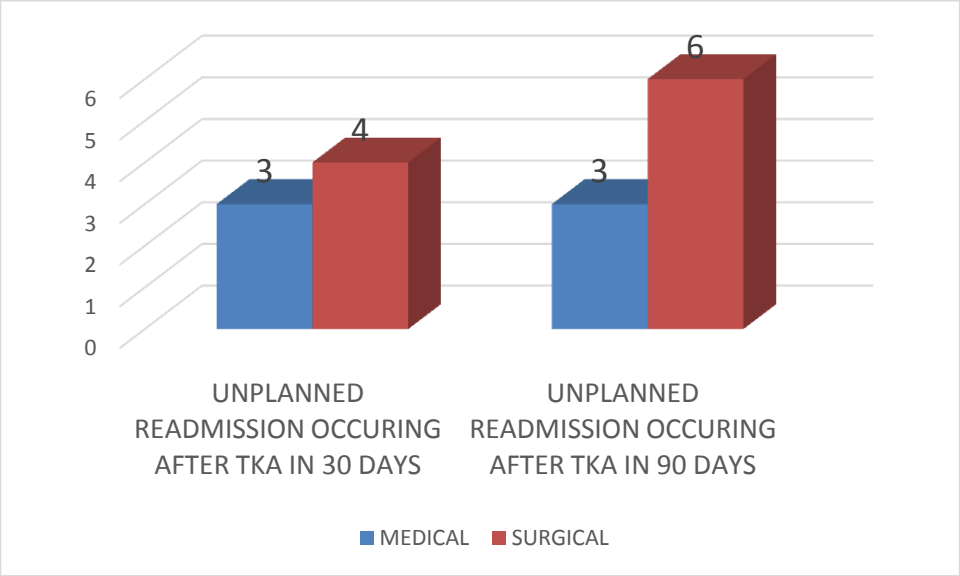

FIGURE 8: DISTRIBUTION OF PATIENTS ACCORDING TO REASONS FOR UNPLANNED VISITS AT 30 DAYS AND 90 DAYS FOLLOW UP AFTER TKA.

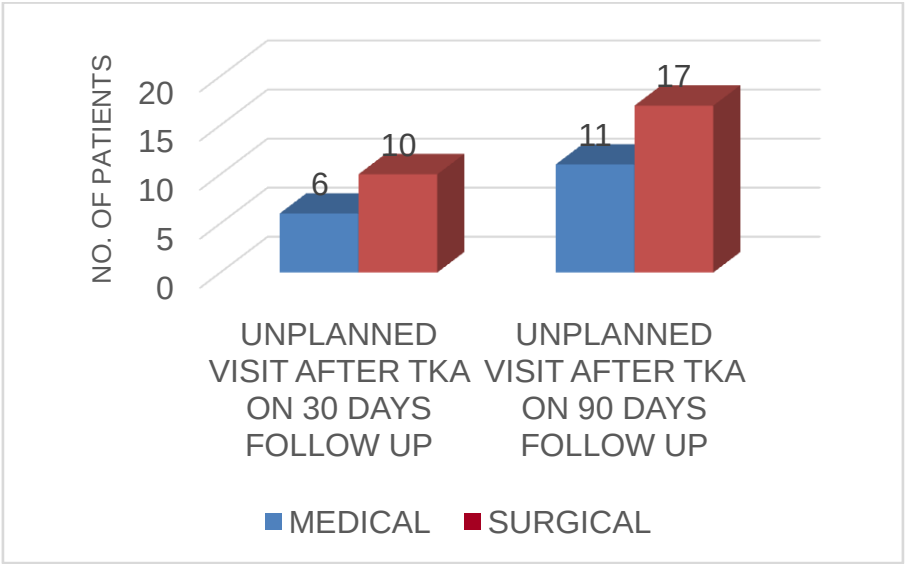

TABLE 19: TABLE FOR UNPLANNED AND PLANNED READMISSIONS WITHIN 90 DAYS.

		Readmissions occurring after TKA within 90 days		
		No	**Yes**	**Total**
Readmissions	None	598	0	598
	Planned	0	2	2
	Unplanned	0	9	9
Total		598	11	609

In our 90 days of follow up post TKA there were total eleven readmissions out of which two readmissions were planned and nine were unplanned readmissions. Unplanned readmission rate at 90 days follow up was 1.47 %(n=9). Planned readmission rate at 90 days follow up was 0.33% (n=2). Total rate of readmission at 90 days follow up was found out to be 1.8%. Average length of stay in the TKA patients getting readmitted in first 90 days follow up was found out to be 5.59 days (range 1 day to 15 days). Re-operation rate in first 90 days follow up after TKA was found out to be 1.15%.

TABLE 20: TABLE FOR REASONS FOR READMISSIONS AT 90 DAYS

Reasons for readmissions within 90 days	No. of Cases	Percentage
Febrile illness	2	0.40%
Neurological issues	2	0.40%
Talo-navicular degeneration	1	0.20%
Soft tissue injury over knee	2	0.40%
Wound complications	4	0.80%

In our 90 days follow up two planned readmissions were found to be due to surgical reasons. One patient undergone spine surgery and other patient undergone ankle arthrodesis. Out of nine unplanned readmissions three readmissions were due to medical reasons and six readmissions occurred due to surgical reasons.

TABLE 21: TABLE FOR UNPLANNED READMISSION BETWEEN 30 DAYS AND 90 DAYS

Patient serial number	**Cause**	**Reason**	**Time duration for readmission after surgery** (In days)	**Treatment given in hospital**	**Total length of stay in hospital**	**Final status**
498	Soft tissue injury	Surgical	60	Wound wash with suturing	3 days	Discharged
616	Soft tissue injury	Surgical	90	Debridement and vacuum assisted closure application	1 day	Discharged

In our 30 to 90 days follow up period out of four readmissions, one had undergone tumor excision of the spine, one due to talonavicular degeneration, which was managed with ankle arthrodesis, two due to soft tissue injury over knee which was managed with wound wash and suturing and other with debridement and VAC application. All four readmissions were managed surgically and were discharged to home.

Mortality rate: During our study period, no deaths were reported, so mortality rate at 30 days and 90 days period was found out to be zero.

Statistical calculations were done using (Statistical Package for the Social Science) SPSS 21 version (SPSS Inc., Chicago, IL, USA) statistical program for Microsoft Windows. Positive correlations were found out between age (p=0.001), male gender (p=0.003) and high BMI (p= 0.001) with high co-morbidity rates. Patients who had undergone bilateral TKA and with duration of complaint > 5 years were found to have positive correlations with high co-morbidities rates (p=0.002 and p=0.001 respectively). Patients with high co-morbidities found to have increased length of stay in the hospital (p=0.001)

No positive correlations were found between co-morbidity status of patients and readmissions occurring at 30 days (p=0.171) and 90 days readmission (p=0.511).

No positive correlations were found between co-morbidity status of patients and unplanned readmissions occurring at 30 days (p=0.171) and 90 days readmission (p=0.813).

No positive correlations were found between co-morbidity status of patients and unplanned visits occurring at 30 days (p=0.363) and 90 days (p=0.554).

No positive correlations were found between unplanned visit within 90 days follow up and unplanned readmissions within 90 days follow up with age group (p=0.009), BMI (p=0.633) and unilateral and bilateral TKA(p=0.696).

Data for unplanned visits within first 30 days follow up after TKA and unplanned readmissions within first 30 days of TKA was not significant to find correlation with age group, BMI, unilateral and bilateral TKA.

DISCUSSION

The current study enrolled 633 patients who underwent TKA between of 1 January 2017 till 28th Feb 2022, 28 of whom were excluded as they could not be reached. Patients were contacted telephonically or on physical follow-up to know unplanned visits and readmissions on the 30 days and 90 days follow-up after undergoing TKA. Complete data on 609 patients was available for compilation and analysis.

Age:

In our study, the mean age of patients enrolled was 62.87 years. The average age of readmitted patients was 63 years. No positive correlation was found between age and unplanned visits and unplanned readmission at 90 days following TKA (p=0.922).

Avram et al [48] conducted a study in which the mean age of readmitted patients was 71.4 years. Cassard et al [54] (2018) studied readmitted patients with an average age of 65.4 yrs. Gromov et al [50] conducted a study in 2019 in which the average age for readmitted patients was 61 yrs. Schairer et al [47] conducted a study regarding readmission rate and causes of readmission in patients aged 63.6 yrs for primary TKA and 62.1 yrs for revision TKA. Urish et al [55] conducted a study with a mean age of 67yrs to compare re-admission and early revision rates.

Nicholas Yohe et al [49] conducted a study to examine the rate and risks of 30-days complications and unplanned readmission in patients older than 80 years and concluded that patients older than 84 years were at a higher risk of minor complications compared to those aged 80 to 84 years.

Ali et al [43] conducted a study for predictors of 30-day readmission after total knee arthroplasty with 566,323 procedures. Increasing age

was associated with a significant and progressive increase in the risk of all-cause readmission for all age groups over 65 years when compared with the 60–64-year-old group.

Apuzzo et al [40] conducted a study on all-cause versus complication-specific readmission following total knee arthroplasty. Older patients (>75 years of age) have a higher risk of readmission independent of other risk factors.

Gould et al [44] in their review study found that in two studies including age as a continuous variable, Lehtonen et al. and Sutton et al. reported a significant difference between readmitted and non-readmitted patients, with readmitted patients being significantly older.

Lévy et al [56] conducted a study on the early mortality and morbidity (first 90 days postoperative) after single-stage bilateral TKR. The average age at surgery is 69 years, and patients over 75 years of age had a higher risk of death.

In the study that Schairer et al [47] conducted, they concluded that there were no differences in age between patients who were readmitted and those who were not.

Sex:

Our study included 609 patients, with females accounting for 69% and males accounting for 31%. In patients undergoing TKA, females predominate over males. Male patients had significantly high co-morbidities, according to our study ($p = 0.003$).

Ali et al [43] conducted a study and found that males had a significantly higher risk of readmission for all types of readmissions.

Apuzzo et al [40] found out in their study that male patients had a higher risk of readmission independent of other risk factors.

Daniel Gould et al [44] in their review from 2019 found that males are frequently found to be at increased risk of readmission following TKA compared to females.

Yohe et al [49] in their study Male patients were at a lower risk than female patients for minor complications postoperatively after TKA.

Urish et al [55] found that male patients have a higher risk of readmission than female patients in their study.

Schairer et al [47] concluded that there was no relationship between sex type and patient readmission rate in their study.

Piuzzi et al [46] confirmed in their study that women have a longer length of stay after total knee arthroplasty.

In their systemic review published in 2021, Gould et al [44] reported that male sex had an increased risk of readmission.

Co-morbidities:

In our study, 32.8% of the patients enrolled in it suffered from hypertension. Other associated co-morbidities found in a minority of patients were Diabetes Mellitus II (14.4%), CAD (4.4%), asthma, hypothyroidism (2.6%), and rheumatoid arthritis (2.6%). Most patients in our study group had Charlson comorbidity scores of 0–1 (66.5%), indicating the mild severity of associated co-morbidities. Another 8.9% of patients had scores greater than 4, whereas 25.6% of subjects had scores of 2–3, indicating moderate severity of associated co-morbidities. In our study, we found an association between patient age

and high comorbidity status (p = 0.001). Male patients had significantly higher co-morbidities, according to our study (p = 0.003). The majority of the 609 patients had a BMI in the higher ranges of overweight. The mean BMI of all patients was 26.7, with a range of 22–35.64. In our study, 54.5% of the patients had a BMI > 25, which also had a correlation with the high co-morbidity status of the patients (p = 0.001). The length of stay of the patients undergoing TKA had a correlation with the high comorbidity status of the patients (p = 0.001), indicating patients with high comorbidities were found to have a greater length of stay. Patients with high comorbidity status were also found to have a greater duration of the complaint of knee pain (> 5 years) prior to TKA (p = 0.001) and had undergone bilateral TKA (p=0.002).

The co-morbidity status of patients and unplanned readmissions occurring at 30 days (p = 0.171) and 90 days (p = 0.813) were not shown any significant correlation. The co-morbidity status of patients and unplanned visits occurring at 30 days (p = 0.363) and 90 days (p = 0.554) were not observed to be correlated.

Benito et al [39] concluded in their study that diabetes and coronary artery disease represent potential risk factors for 90-day readmission after TKA.

Gould et al [44] in their systematic review and meta-analysis included sixty-nine studies in which risk factors associated with 30-day readmission were: hypertension, congestive heart failure (CHF), diabetes, an elevated preoperative international normalised ratio (INR), elevated serum blood urea nitrogen (BUN), reduced serum albumin, depression, drug abuse, a history of cancer, and chronic kidney disease (CKD).

Fischer et al [45] found in their review study on readmission rates that, for certain diseases like heart failure; the patient’s condition is the major driver behind repeated admissions.

Gromov et al [50] concurred in their study that a main safety consideration following discharge is potential serious complications that are better treated during hospital admission and potentially fatal if occurring at the patient's own home, such as thromboembolic events and pulmonary embolism, myocardial infection, and stroke.

Adam M. Ali et al [43] inferred in their study that coagulopathy was a significant predictor of all-cause and surgical readmission, possibly due to increased susceptibility to wound problems, but to a lesser extent than that described for THA.

In their study, Apuzzo et al [40] concluded that patients with coagulopathies, renal disease, heart disease, obesity, and mental health issues were at an increased risk of TKA-specific readmission. Although depression was to be a risk factor for TKA-specific readmissions, drug abuse and psychoses contributed only to all-cause readmissions. Diabetes and anemia have been reported to increase the risk of readmission after TKA; in their model, these were risk factors for all-cause but not TKA-specific readmission.

Yohe et al [49] found in their study that patients who were partially or completely dependent on others to assist with activities of daily living prior to surgery were at an increased risk for unplanned readmission. Patients with COPD were at increased risk for unplanned readmission. Patients with CHF had an increased risk of unplanned readmission following surgery.

Length of stay in hospital:

Urish et al [55] conducted a study and concluded in their study that older patients with diabetes who had a LOS longer than 5 days and were then readmitted had an increased risk of a reoperation within 1 year.

Benito et al [39] showed in their study that patients with an LOS greater than 1 day had greater odds of 90-day readmission rates compared with those in the control group.

Cassard et al [54] reported that the average length of stay in the inpatient group was 2.9 days, decreasing from 3.5 days in 2014 to 2.2 days in 2017.

Avram et al [48] showed that the mean readmission hospital length of stay for all causes was 8.3 days. The average length of stay was 6.53 days (range 6 to 13 days). The average length of stay for TKA patients readmitted within the first 30 days of follow-up was 6.86 days (range: 1 day to 15 days). The average length of stay for TKA patients readmitted within the first 90 days of follow-up was 5.59 days (range: 1 day to 15 days).

Complications:

DVT/PE: None of the patients had signs or symptoms like localized tenderness along the deep venous system, entire leg swollen, calf swelling >3 cm on the asymptomatic side, pitting oedema confined to the symptomatic leg, collateral superficial veins, hemoptysis, breathlessness, pain in the calf and thigh, and the Homan's sign suggestive of DVT/PE in the post-operative period in our study.

Wound Complications: In our study, 5 out of 609 patients developed a surgical site wound complication during their unplanned visits at the 30-day follow-up. Four of these patients had been readmitted and required surgical intervention. One patient had developed erythema at the surgical site, one had bleeding from the suture line, and two patients had discharge from the suture line, for which three patients were managed with knee arthrotomy and lavage and one with debridement with VAC application.

Two out of 609 patients were admitted with soft tissue injuries requiring readmission between 30 and 90 days after TKA.

Mortality:

Lévy et al [56] studied early morbidity and mortality after single-stage bilateral TKR and concluded the 90-day mortality rate to be zero.

Yohe et al [49] studied complications and readmissions after TKA in octogenarians and nonagenarians and found an overall 30-day mortality rate of 0.2% for all patients undergoing primary TKA.

In our study, there were no deaths among the 609 patients who were followed for 90 days. We reported that the 30-day and 90-day mortality rates were both zero. In our study, there was no overall mortality.

Unplanned visits to the hospital following TKA:

In our study, 28 patients out of 609 had an unplanned visit to the hospital within 90 days of TKA. 16(2.6%) of the 28 unplanned visits occurred within the first 30 days of TKA. Ten of the unplanned visits within the first 30 days of TKA were for surgical reasons, while the remaining six were for medical reasons.

In our 90-day follow-up after TKA, out of 28 (4.6%) unplanned visits, 17 were due to surgical reasons and 11 were due to medical reasons.

Cassard et al [54] found in their study that unplanned visits to the hospital within 30 days of TKA was 4.8% (n=3) in outpatient and 2.4% (n=12) in inpatient.

Readmission rates following TKA:

In our study, 11 patients out of 609 (1.8%) were readmitted to the hospital in the 90 days follow-up period. Out of 11 patients, 2 had a planned readmission, and 9 had an unplanned readmission.

Out of these 11 readmissions, there were a total of seven (1.1%) unplanned readmissions that occurred within the first 30 days of TKA and zero planned readmissions. Out of seven unplanned readmissions, two were due to febrile illnesses, which were managed with oral antibiotics with packed red blood cell transfusion and intravenous antibiotics, respectively; one was due to stroke, for which anticoagulants and thrombolytics were given; and four were due to wound-related complications, which were managed with knee arthrotomy and lavage and debridement with VAC application.

Out of seven unplanned readmissions, three occurred due to medical reasons, and four occurred due to surgical causes.

In our 30- to 90-day follow-up period, four readmissions occurred, out of which two were planned and two were unplanned: one with a spine tumor, which had undergone tumor excision for the same; one due to talonavicular degeneration, which was managed with ankle arthrodesis; two due to soft tissue injuries over the knee, which were managed with wound wash and suturing; and the other with debridement and VAC application. All patients were discharged to their homes.

Re-operation rate in 30 days and 90 days follow up after TKA was found out to be 0.66 % (n=4) and 1.15%(n=8) respectively.

Unplanned readmissions within 90 days of follow-up and unplanned visits within 90 days of follow-up did not significantly correlate with age group (p=0.922), BMI (p=0.633), or unilateral or bilateral TKA

(p=0.696). Unplanned readmissions within the first 30 days after TKA and data for unplanned visits within the first 30 days of follow-up following TKA were not substantial enough to be identified.

Schairer et al [47] conducted a study to understand the cause and rates of readmission after TKA. The unplanned readmission rate was 8% at 90 days. Approximately three-fourths of readmissions were the result of surgical causes, mostly infection, arthrofibrosis, and cellulitis, whereas the remainder were the result of medical causes.

Urish et al [55] concluded in their study that reoperation rates at one year are comparable in scale to readmission rates at 30 and 90 days. Reoperation rates in TKA within a year were 1.8%. Readmission rates were 4% within 30 days and 5.8% within 90 days. The primary cause of early revision during the first year in this population was periprosthetic joint infection. More than 60% of all reoperations were related to infection.

Cassard et al [54] conducted a study on the 30-day readmission rate following TKA. The rate was 3.3% (2/61) in the outpatient group and 4.9% (25/513) in the inpatient group. The reasons for readmission in the outpatients were knee pain in one patient and a febrile episode unrelated to the surgery in another. In the inpatient group, the most common complications were medical, although surgical complications were also recorded. The number of patients who visited the emergency room during the first 30 days but did not require admission was 3 (4.8%) in the outpatient group (1 case each of hematoma, pain, and epistaxis) and 12 (2.4%) in the inpatient group (surgical complications = 7; medical complications, n = 5) (p = 0.21). The study's complication rate was discovered to be 8%.

Apuzzo et al [40] found in their study that readmissions due to TKA-specific criteria accounted for only 11% (2,449) of all readmissions at 30 days, whereas readmissions due to TKA-specific criteria on the

expanded list comprised 31% (6,784) of all readmissions at 30 days. Revision TKA, which is included on the expanded list of TKA-specific criteria for readmission, was the reason for the readmission of 635 (0.2%) of the patients. The frequency of all-cause readmission that they reported for NY State is consistent with the upper values of the previously reported range of 2.0% to 6.6% within 30 days after primary TKA. However, they found much lower frequencies of readmissions for TKA-specific causes. Only 11% of readmissions (0.7% of primary TKAs) could be considered due to TKA-specific complications. In conclusion, using a statewide database, they determined that TKA-specific readmissions account for only 11% to 31% of all-cause readmissions at 30 days after discharge.

Readmission rate in other studies, including those by Springer et al [57], showed a higher 1-month readmission rate in the outpatient group (12%) than in the inpatient group (6%). Kolisek et al [58] recorded no readmissions among 64 patients who had outpatient TKA, and the readmission rate in a study by Berger et al [59] was 3.6%. Otero et al [60] found no differences in readmission rates according to hospital stay length after TKA.

According to Lee et al study unplanned readmission rates were 1.9% (n=59) after 30 days and 3.3% (n=101) within 90 days. [61]

In their study, Curtis et al [62] found that from 2012 to 2016, the incidence of 30-day readmission following primary TKA was 3.19% (6014/188,251).

In our study, the 30-day readmission rate after TKA was found to be 1.1%, and the 90-day readmission rate was found to be 1.8%.

TABLE 22: FOR COMPARING READMISSIONS AFTER TKA WITH VARIOUS STUDIES

Readmission After TKA	On 30 Days Follow Up	On 90 Days Follow Up
in our study	1.1 %(n=7)	1.8%(n=11)
Urish et al.	4%(n=703)	5.8%(n=1209)
Cassard et al	3.3%(n=2) Outpatient 4.9%(n=25) inpatient	NA
Avram et al	2% (n=55)	NA
Workman et al	2.8%(n=210)	NA
Ali et al	6.0%(n=37195)	NA
Apuzzo et al	5.8% (n=22,076)	NA
Levy et al	NA	5.2% (n=6)
Curtis et al	3.14%(n=6014)	NA

TABLE 23: FOR COMPARING UNPLANNED READMISSIONS AFTER TKA WITH VARIOUS STUDIES

Unplanned readmission After TKA	On 30 Days Follow Up	On 90 Days Follow Up
In our study	1.1 %(n=7)	1.4%(n=9)
Schairer et al.	4%(n=57)	8%(n=118)
Urish et al.	4%(n=703)	5.8%(n=1209)
Cassard et al	3.3%(n=2) outpatient 4.9%(n=25) inpatient	NA
Apuzzo et al	5.8% (n=22,076)	NA
Springer et al.,	12%(outpatient) 6%(inpatient)	NA
Kolisek et al	0%	NA
Berger et al.	3.60%	NA
Levy et al	NA	5.2% (n=6)
Ali et al	6.0%(n=37195)	NA
Workman et al	2.8%(n=210)	NA
Avram et al	2% (n=55)	NA
Yohe et al	4.7%(n=566)	NA
Curtis et al	3.14%(n=6014)	NA
Lee et al	1.9%(n=59)	3.3%(n=101)

323 out of 609 patients underwent bilateral TKA, whereas 286 underwent unilateral TKA. Bilateral TKA had significant correlation with higher co-morbidity status (p=0.002)

In our study, the rates of unplanned hospital visits, readmission, surgery or any surgery, and mortality are also very low. There was only zero mortality during our follow-up.

Unplanned readmission rates serve as a gauge for the efficiency of the healthcare system. Readmission rates have been used in the USA as a motivator to lower readmission and promote better practice. Although India does not have such a programme, so studies are required to know the various causes and risk factor for unplanned readmissions which help us mitigate this problem in Indian society.

Reduced hospital length of stay (LOS) in TKA is a noticeable trend in the western world. The use of TKA surgery as an outpatient procedure has also expanded. Because most patients are transferred to nursing homes or inpatient rehabilitation facilities in the west, the average length of stay is shorter. Low LOS has been linked to greater 30-day readmission rates in study by Ali et al [43] and Cram et al [63] While in India; many patients are discharged to home with limited access to medical care which justifies a longer length of stay and adequate optimization of patients before discharge. In our study the unplanned visits and readmissions are on lower side as patients are being optimized following surgery before being discharged. However further studies are required within Indian population with larger sample size to know the effect of length of stay on readmission and other factors that affect readmission rates.

SUMMARY AND CONCLUSION

The patients in the study have an average age of 62.87 years, with a range of 35-91 years.73.5% of patients were between the ages of 51 and 70, 18.6% were over the age of 71, and 7.9% were under the age of 50. 69 percent of patients were female, and 31 percent were male. The sex ratio in this study was notable, with females out numbering males.

Out of 609 patients many patients (54.5%) were overweight, 4.6% were class 1 obese, and the rest had a normal BMI. Most of the patients were in the overweight category which also increased the risk of co-morbidity ($p = 0.001$) according to our study. 304 out of 609 patients underwent bilateral TKA. 305 patients had unilateral TKA, for a total of 913 operated knees. Patients undergoing bilateral TKA have a positive correlation with a higher co-morbidity status ($p = 0.002$).

The average length of stay was 6.53 days (ranging from 6 to 13 days). The average length of stay for TKA patients readmitted within the first 30 days of follow-up was 6.86 days (ranging from 1 day to 15 days). The average length of stay for TKA patients readmitted within the first 90 days of follow-up was 5.59 days (range: 1 day to 15 days).

The majority of patients in our study group had Charlson comorbidity scores of (65.5%) indicating the mild severity of associated co-morbidities. Another 8.9% of patients received a score of 4 or higher, while 25.6% received a score between 2 and 3.

In our study, 32.8% of the patients enrolled in it suffered from hypertension. Other associated co-morbidities found in a minority of patients were Diabetes Mellitus II (14.4%), CAD (4.4%), asthma, hypothyroidism (2.6%), and rheumatoid arthritis (2.6%). Most patients

in our study group had Charlson comorbidity scores of 0–1 (66.5%), indicating the mild severity of associated co-morbidities. Another 8.9% of patients had scores greater than 4, whereas 25.6% of subjects had scores of 2–3, indicating moderate severity of associated co-morbidities. In our study, we found a link between patient age and high comorbidity status ($p = 0.001$). Male patients had significantly higher co-morbidities, according to our study ($p = 0.003$). The majority of the 609 patients had a BMI in the higher ranges of overweight. The mean BMI of all patients was 26.7, with a range of 22–35.64. In our study, 54.5% of the patients had a BMI > 25, which also had a correlation with the high co-morbidity status of the patients ($p = 0.001$). The length of stay of the patients undergoing TKA had a correlation with the high comorbidity status of the patients ($p = 0.001$), indicating patients with high comorbidities were found to have a greater length of stay. Patients with high comorbidity status were also found to have a greater duration of the complaint of knee pain (> 5 years) prior to TKA ($p = 0.001$) and had undergone bilateral TKA ($p = 0.002$).

The co-morbidity status of patients and unplanned readmissions occurring at 30 days ($p = 0.171$) and 90 days ($p = 0.813$) were not significantly correlated. The co-morbidity status of patients and unplanned visits occurring at 30 days ($p = 0.363$) and 90 days ($p = 0.554$) were not found to be correlated.

In our study, 16 of the 28 unplanned visits happened within the first 30 days of TKA. It comprises 2.6% of total cases.

Out of 16 unplanned visits, there were seven unplanned readmissions, occurring in the first 30 days of TKA. The rate of readmission in the first 30 days of the follow-up was found to be 1.1%.

In our 90-day follow-up, there were a total of 28 unplanned visits to the hospital, and the rate of unplanned visits was found to be 4.6%.

In our 90-day post-TKA follow-up, there were eleven readmissions, two of which were planned and nine of which were unplanned, yielding a readmission rate of 1.8% (n = 11) and an unplanned readmission rate of 1.4% (n = 9).

The 30-day and 90-day re-operation rates after TKA were 0.66 percent (n = 4) and 1.15% (n = 8), respectively.

Unplanned readmissions within 90 days of follow-up and unplanned visits within 90 days of follow-up did not significantly correlate with age group (p = 0.922), BMI (p = 0.633), or unilateral or bilateral TKA (p = 0.696). Data for unplanned visits and readmissions within the first 30 days of follow-up after TKA was not significant enough to find correlation with age, BMI and unilateral versus Bilateral.

In our study, we reported a zero mortality rate 30-days and 90-days follow up.

Our study reported low readmission rate following TKA. There was no significant correlation between readmission rates at 90 days follow up and patient factors such as age, BMI and Co-morbidity status.

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PROFORMA

S.No. Date:

Name: Age/Sex:

MRD No. Admission no.

Father/Husband Name: Occupation of Self:

Weight: ____ kg Height: _____ cm BMI: ____

Diagnosis: OA / RA / Others

Date of TKA: date of discharge:

Duration of complaints: > 10 y/ 5 – 10 y/ 2 – 5 y / 1 – 2 y/ ≤1 years prior to TKA

Length of hospital stays for TKA:

Type of anesthesia given: regional / general anesthesia

If regional: nerve block/ epidural / spinal

Pre operative medications taken by patient:

If others :

ASA grading at admission:

Condition of patient at time of admission :	**yes**	**no**
A normally healthy patient		
A patient with mild systemic disease		
A patient with severe systemic disease that limits activity but is not incapacitating		
A patient with an incapacitating systemic disease that is a constant threat to life		
A moribund patient who is not expected to survive 24 h with or without treatment		

Post operative DVT prophylaxis regimen In hospital:

At discharge

Duration of intravenous antibiotics:

Signature of Candidate **Signature of Supervisor**

Post op physiotherapy status at discharge: walking independently / walking with stick / walking with walker / confined to bed

Associated Ailments: Charlson Co- Morbidity index

Renal disease/ Any malignancy/ Moderate liver disease/ Aids /HIV/ Metastatic solid tumour/ hemiplegia/ Diabetes with end organ damage/ Diabetes without end organ damage/ Mild liver disease/ Peptic ulcer disease/ Rheumatic disease/ Chronic pulmonary disease/ dementia/ Cerebrovascular disease/ Myocardial infarction/ Congestive heart failure/ Peripheral vascular disease

Other medical diseases:

Unplanned hospital visits after TKA: Y / N

If yes, reason for visit :

Does that hospital visit result in readmission: Y / N

If yes reason for readmission:

Readmission in hospital: Planned/ Unplanned

Time after TKA:

Length of stay in hospital:

Treatment given in the hospital:

Any surgical intervention:

Outcome:

Signature of Candidate

Signature of Supervisor

COMPLICATIONS :

	yes	no
Hematoma		
Major bleed		
Minor bleed		
Wound complication		
Venous thromboembolism / pulmonary embolism		
Deep prosthetic joint infection		

Any other complication:

Condition of patient at time of readmission :	**yes**	**no**
A normally healthy patient		
A patient with mild systemic disease		
A patient with severe systemic disease that limits activity but is not incapacitating		
A patient with an incapacitating systemic disease that is a constant threat to life		
A moribund patient who is not expected to survive 24 h with or without treatment		

Signature of Candidate **Signature of Supervisor**

S. NO	Age (yrs)	Gender	MRD No	Occupation	BMI	Diagnosis	Knee Involved	Duration of complaints	Charlson Comorbidity Index	Mortality	Length of stay (days)	COMPLICATIONS AFTER TKA	READMISSION	REASON FOR READMISSION	WAS REASON FOR READMISSION VISIT WAS MEDICAL OR SURGICAL	READMISSION WAS PLANNED OR UNPLANNED	TIME OF READMISSION AFTER TKA	LENGTH OF STAY IN HOSPITAL	TREATMENT GIVEN DURING READMISSION	UNPLANNED VISIT TO HOSPITAL	UNPLANNED VISIT AFTER TKA ON 30 DAYS FOLLOW UP	UNPLANNED VISIT AFTER TKA ON 90 DAYS FOLLOW UP	REASON FOR UNPLANNED VISIT
1	64	FEMALE	178617	HOUSEWIFE	32.85	OA	RIGHT	5-10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
2	63	FEMALE	68490	HOUSEWIFE	31.16	OA	LEFT	>10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
3	60	FEMALE	191516	HOUSEWIFE	27.64	OA	RIGHT	2-5 YRS	1	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
4	60	FEMALE	206184	RETIRED	28.73	OA	BILATERAL	>10 YRS	1	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
5	58	FEMALE	96773	HOUSEWIFE	30.48	OA	RIGHT	2-5 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
6	56	FEMALE	198430	HOUSEWIFE	29.00	OA	RIGHT	>10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
7	66	FEMALE	205302	RETIRED	27.06	OA	LEFT	5-10 YRS	1	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
8	38	FEMALE	206666	HOUSEWIFE	30.72	RA	LEFT	>10 YRS	1	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
9	72	MALE	211752	RETIRED	30.61	OA	LEFT	5-10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
10	56	FEMALE	213042	HOUSEWIFE	26.30	OA	BILATERAL	5-10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
11	56	FEMALE	211242	HOUSEWIFE	29.37	OA	LEFT	>10 YRS	2	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
12	70	FEMALE	202461	DEPENDENT	28.07	OA	BILATERAL	>10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
13	58	MALE	22518	HOUSEWIFE	27.41	OA	BILATERAL	>10 YRS	1	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
14	69	FEMALE	22284	DEPENDENT	28.70	OA	RIGHT	5-10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
15	65	MALE	24458	RETIRED	32.00	OA	BILATERAL	>10 YRS	2	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	YES	NO	YES	PAIN WITH RADIATION WITH DIFFICULTY IN WALKING
16	62	FEMALE	227926	HOUSEWIFE	27.99	OA	RIGHT	>10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
17	73	FEMALE	228109	DEPENDENT	26.40	OA	BILATERAL	5-10 YRS	1	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
18	77	MALE	228521	DEPENDENT	27.28	OA	LEFT	>10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
19	61	MALE	284807	RETIRED	31.44	OA	LEFT	5-10 YRS	2	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
20	50	MALE	233024	FARMER	27.47	OA	LEFT	>10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
21	60	FEMALE	240237	HOUSEWIFE	30.11	OA	RIGHT	>10 YRS	1	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
22	72	FEMALE	32216	DEPENDENT	27.70	OA	BILATERAL	1-2 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	YES	NO	NO	NONE
23	61	MALE	245559	RETIRED	30.93	OA	BILATERAL	>10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
24	65	FEMALE	225702	HOUSEWIFE	27.41	OA	BILATERAL	5-10 YRS	2	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
25	54	FEMALE	248725	HOUSEWIFE	27.64	OA	LEFT	2-5 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
26	74	MALE	117147	RETIRED	27.73	OA	RIGHT	2-5 YRS	1	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
27	61	MALE	253414	FARMER	30.46	OA	BILATERAL	5-10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
28	67	MALE	253531	DEPENDENT	26.51	OA	RIGHT	5-10 YRS	1	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
29	58	FEMALE	255418	HOUSEWIFE	28.33	OA	BILATERAL	>10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
30	42	FEMALE	256086	HOUSEWIFE	27.73	OA	BILATERAL	>10 YRS	1	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
31	79	FEMALE	266355	DEPENDENT	28.39	OA	BILATERAL	5-10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
32	61	FEMALE	21982	RETIRED	27.73	OA	LEFT	>10 YRS	2	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
33	67	FEMALE	269801	DEPENDENT	27.73	OA	BILATERAL	5-10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
34	76	FEMALE	266873	DEPENDENT	28.23	OA	LEFT	>10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
35	70	MALE	271121	DEPENDENT	30.93	OA	BILATERAL	>10 YRS	6	DECEASED	7	Lower GI bleed	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
36	63	FEMALE	267567	HOUSEWIFE	26.53	OA	BILATERAL	>10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
37	39	FEMALE	272984	HOUSEWIFE	30.48	RA	LEFT	2-5 YRS	1	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
38	59	FEMALE	169898	HOUSEWIFE	31.24	OA	LEFT	>10 YRS	1	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
39	48	FEMALE	262776	HOUSEWIFE	31.24	OA	LEFT	>10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
40	57	FEMALE	276370	HOUSEWIFE	28.39	OA	BILATERAL	>10 YRS	2	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
41	68	FEMALE	276268	HOUSEWIFE	28.07	OA	BILATERAL	>10 YRS	2	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
42	68	FEMALE	277095	HOUSEWIFE	31.24	OA	BILATERAL	>10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
43	91	MALE	277605	DEPENDENT	27.06	OA	BILATERAL	>10 YRS	6	DECEASED	7	Upper and lower GI bleed	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
44	57	MALE	238425	FARMER	26.53	OA	BILATERAL	>10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
45	65	MALE	263370	DEPENDENT	32.05	OA	BILATERAL	5-10 YRS	1	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
46	62	FEMALE	280065	HOUSEWIFE	28.07	OA	BILATERAL	2-5 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
47	71	MALE	286460	DEPENDENT	25.08	OA	RIGHT	2-5 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
48	62	FEMALE	294398	HOUSEWIFE	24.97	RA	LEFT	>10 YRS	1	NO	6	NONE	YES	DIFFICULTY WALKING AND PAIN IN RIGHT ANKLE	SURGICAL	PLANNED	3 MONTH	3 DAYS	ANKLE ARTHRODESIS	NO	NO	NO	NONE
49	63	MALE	62291	RETIRED	26.61	OA	BILATERAL	2-5 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
50	51	FEMALE	289610	HOUSEWIFE	28.38	OA	LEFT	5-10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
51	67	FEMALE	290014	DEPENDENT	27.34	OA	BILATERAL	5-10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
52	75	FEMALE	29089	DEPENDENT	27.89	OA	BILATERAL	5-10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
53	63	MALE	25545	FARMER	27.73	OA	RIGHT	5-10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
54	60	FEMALE	282989	HOUSEWIFE	27.34	OA	LEFT	>10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
55	70	FEMALE	292456	DEPENDENT	27.41	OA	BILATERAL	5-10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
56	64	FEMALE	295170	DEPENDENT	31.24	OA	RIGHT	5-10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
57	80	FEMALE	299959	DEPENDENT	28.38	OA	RIGHT	5-10 YRS	1	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
58	55	MALE	280553	BUSSINESSMAN	31.83	OA	LEFT	2-5 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
59	73	FEMALE	305680	DEPENDENT	28.07	OA	BILATERAL	2-5 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
60	67	FEMALE	308308	DEPENDENT	28.73	OA	BILATERAL	>10 YRS	0	DECEASED	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
61	70	FEMALE	310235	DEPENDENT	30.48	OA	LEFT	2-5 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
62	62	FEMALE	312808	HOUSEWIFE	29.41	OA	BILATERAL	5-10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
63	74	FEMALE	291411	DEPENDENT	28.04	OA	LEFT	2-5 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
64	64	MALE	308420	RETIRED	30.76	OA	LEFT	>10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
65	47	FEMALE	314971	HOUSEWIFE	29.73	OA	RIGHT	>10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
66	55	FEMALE	312846	HOUSEWIFE	27.99	OA	RIGHT	>10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
67	53	MALE	318706	FARMER	27.73	OA	RIGHT	5-10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
68	66	MALE	322554	DEPENDENT	27.40	OA	LEFT	>10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
69	74	FEMALE	322470	DEPENDENT	28.72	OA	BILATERAL	>10 YRS	1	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
70	72	MALE	72651	RETIRED	26.79	OA	BILATERAL	5-10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
71	65	FEMALE	327474	DEPENDENT	30.06	RA	BILATERAL	5-10 YRS	1	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE

S. NO	Age (yrs)	Gender	MRD No	Occupation	BMI	Diagnosis	Knee Involved	Duration of complaints	Charlson Comorbidity Index	Mortality	Length of stay (days)	COMPLICATIONS AFTER TKA	READMISSION	REASON FOR READMISSION	WAS REASON FOR READMISSION VISIT WAS MEDICAL OR SURGICAL	READMISSION WAS PLANNED OR UNPLANNED	TIME OF READMISSION AFTER TKA	LENGTH OF STAY IN HOSPITAL	TREATMENT GIVEN DURING READMISSION	UNPLANNED VISIT TO HOSPITAL	UNPLANNED VISIT AFTER TKA ON 30 DAYS FOLLOW UP	UNPLANNED VISIT AFTER TKA ON 90 DAYS FOLLOW UP	REASON FOR UNPLANNED VISIT
72	59	FEMALE	329124	HOUSEWIFE	28.73	OA	BILATERAL	5-10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
73	78	FEMALE	303170	DEPENDENT	28.08	OA	BILATERAL	>10 YRS	1	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
74	55	MALE	330952	FARMER	28.71	OA	RIGHT	5-10 YRS	0	DECEASED	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
75	54	FEMALE	38950	HOUSEWIFE	27.73	OA	RIGHT	2-5 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
76	76	MALE	336457	RETIRED	31.05	OA	BILATERAL	5-10 YRS	5	DECEASED	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
77	65	FEMALE	273572	HOUSEWIFE	29.36	OA	RIGHT	>10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
78	52	FEMALE	211242	HOUSEWIFE	27.73	OA	LEFT	>10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
79	73	FEMALE	312872	RETIRED	27.48	OA	BILATERAL	5-10 YRS	1	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
80	70	FEMALE	327690	DEPENDENT	26.79	OA	BILATERAL	>10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
81	80	FEMALE	299959	DEPENDENT	27.73	OA	LEFT	>10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
82	60	FEMALE	340505	RETIRED	30.49	OA	RIGHT	5-10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
83	51	FEMALE	340925	HOUSEWIFE	29.06	OA	BILATERAL	5-10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
84	71	MALE	57209	RETIRED	25.64	OA	RIGHT	2-5 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
85	66	FEMALE	342596	HOUSEWIFE	30.59	OA	LEFT	5-10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
86	72	FEMALE	344217	DEPENDENT	29.06	OA	BILATERAL	5-10 YRS	2	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
87	61	FEMALE	346357	HOUSEWIFE	26.51	OA	BILATERAL	>10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
88	72	FEMALE	251268	DEPENDENT	29.37	OA	RIGHT	5-10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
89	60	MALE	344619	RETIRED	30.76	OA	BILATERAL	5-10 YRS	0	DECEASED	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
90	62	FEMALE	349694	HOUSEWIFE	27.73	RA	BILATERAL	>10 YRS	1	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
91	60	FEMALE	354490	HOUSEWIFE	27.73	OA	BILATERAL	>10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
92	62	FEMALE	353695	HOUSEWIFE	27.73	OA	BILATERAL	5-10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
93	62	FEMALE	355865	HOUSEWIFE	29.06	OA	BILATERAL	2-5 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
94	69	FEMALE	360698	DEPENDENT	26.90	OA	RIGHT	5-10 YRS	2	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
95	66	FEMALE	338422	HOUSEWIFE	28.38	OA	BILATERAL	>10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
96	44	FEMALE	358845	PROFESSIONAL	29.73	RA	BILATERAL	5-10 YRS	1	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
97	62	MALE	57472	RETIRED	26.40	OA	BILATERAL	>10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
98	52	FEMALE	55505	HOUSEWIFE	27.73	OA	BILATERAL	5-10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
99	68	FEMALE	364649	DEPENDENT	32.46	OA	BILATERAL	5-10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
100	64	FEMALE	348503	HOUSEWIFE	25.90	OA	BILATERAL	>10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
101	68	MALE	362014	FARMER	25.90	OA	LEFT	5-10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
102	62	MALE	362018	FARMER	26.22	OA	LEFT	>10 YRS	1	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
103	72	FEMALE	374301	DEPENDENT	27.36	OA	RIGHT	5-10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
104	35	FEMALE	54632	HOUSEWIFE	27.92	RA	RIGHT	5-10 YRS	1	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
105	62	FEMALE	374113	DEPENDENT	27.66	OA	RIGHT	5-10 YRS	2	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
106	60	FEMALE	351943	HOUSEWIFE	29.32	OA	RIGHT	5-10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
107	62	FEMALE	340208	DEPENDENT	27.73	OA	BILATERAL	>10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
108	56	FEMALE	67848	PROFESSIONAL	31.25	OA	LEFT	2-5 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
109	48	FEMALE	383831	HOUSEWIFE	30.06	OA	BILATERAL	1-2 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
110	61	FEMALE	384709	HOUSEWIFE	29.73	OA	LEFT	2-5 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
111	75	FEMALE	394785	DEPENDENT	27.34	OA	LEFT	5-10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
112	67	FEMALE	364445	DEPENDENT	23.03	OA	BILATERAL	>10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
113	58	FEMALE	394708	HOUSEWIFE	27.76	OA	BILATERAL	2-5 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
114	60	FEMALE	390784	HOUSEWIFE	26.22	OA	BILATERAL	>10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
115	65	FEMALE	399473	DEPENDENT	27.34	OA	LEFT	2-5 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
116	63	MALE	396048	HOUSEWIFE	28.98	OA	RIGHT	5-10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
117	79	MALE	390998	DEPENDENT	26.25	OA	LEFT	>10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
118	70	MALE	400527	DEPENDENT	27.46	OA	LEFT	2-5 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
119	60	FEMALE	406584	DEPENDENT	30.49	OA	BILATERAL	>10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
120	65	MALE	401823	RETIRED	31.95	OA	BILATERAL	>10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
121	60	FEMALE	242208	HOUSEWIFE	26.37	OA	LEFT	5-10 YRS	5	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
123	47	FEMALE	426944	HOUSEWIFE	27.85	OA	BILATERAL	5-10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
124	67	FEMALE	426940	DEPENDENT	28.03	OA	LEFT	>10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
125	68	MALE	428588	DEPENDENT	29.76	OA	BILATERAL	2-5 YRS	1	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
126	70	FEMALE	428947	HOUSEWIFE	30.10	OA	BILATERAL	>10 YRS	1	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	YES	NO	YES	PAIN AND CREPITUS
127	51	FEMALE	431871	HOUSEWIFE	26.12	OA	BILATERAL	5-10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
128	74	FEMALE	433059	DEPENDENT	26.93	OA	BILATERAL	2-5 YRS	1	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
129	59	FEMALE	435839	RETIRED	30.44	OA	BILATERAL	2-5 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
130	56	FEMALE	437682	HOUSEWIFE	31.53	OA	BILATERAL	>10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
131	67	MALE	22825	HOUSEWIFE	27.14	OA	BILATERAL	2-5 YRS	2	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	YES	YES	YES	PAIN WITH RADIATION WITH DIFFICULTY IN WALKING
132	75	MALE	450050	RETIRED	32.00	OA	BILATERAL	2-5 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
133	55	FEMALE	447670	HOUSEWIFE	25.21	OA	BILATERAL	5-10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
134	64	FEMALE	448789	HOUSEWIFE	24.06	OA	BILATERAL	5-10 YRS	1	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
135	63	MALE	444220	DEPENDENT	27.89	OA	RIGHT	>10 YRS	0	DECEASED	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
136	50	FEMALE	448539	HOUSEWIFE	26.26	OA	RIGHT	2-5 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
137	67	FEMALE	454199	RETIRED	23.46	OA	BILATERAL	5-10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
138	54	MALE	133638	FARMER	26.53	OA	BILATERAL	5-10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
139	65	MALE	351874	DEPENDENT	30.93	OA	BILATERAL	5-10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
140	65	MALE	8935	DEPENDENT	32.85	OA	RIGHT	>10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
141	57	FEMALE	451885	HOUSEWIFE	26.61	OA	LEFT	5-10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
142	74	MALE	141638	DEPENDENT	25.90	OA	RIGHT	5-10 YRS	1	NO	6	NONE	YES	SWELLING AND ERYTHEMA AT SURGICAL SITE	SURGICAL	UNPLANNED	1 MONTH	1 DAY	KNEE ARHTROTOMY AND LAVAGE	YES	YES	YES	SWELLING
143	63	MALE	308320	RETIRED	27.72	OA	BILATERAL	5-10 YRS	2	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
144	55	FEMALE	439885	HOUSEWIFE	25.83	OA	BILATERAL	5-10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
145	62	MALE	446352	FARMER	31.64	OA	BILATERAL	>10 YRS	1	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
146	75	MALE	460891	RETIRED	25.62	OA	RIGHT	>10 YRS	3	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	YES	NO	NO	NONE

S. NO	Age (yrs)	Gender	MRD No	Occupation	BMI	Diagnosis	Knee Involved	Duration of complaints	Charlson Comorbidity Index	Mortality	Length of stay (days)	COMPLICATIONS AFTER TKA	READMISSION	REASON FOR READMISSION	WAS REASON FOR READMISSION VISIT WAS MEDICAL OR SURGICAL	READMISSION WAS PLANNED OR UNPLANNED	TIME OF READMISSION AFTER TKA	LENGTH OF STAY IN HOSPITAL	TREATMENT GIVEN DURING READMISSION	UNPLANNED VISIT TO HOSPITAL	UNPLANNED VISIT AFTER TKA ON 30 DAYS FOLLOW UP	UNPLANNED VISIT AFTER TKA ON 90 DAYS FOLLOW UP	REASON FOR UNPLANNED VISIT
147	70	MALE	459586	DEPENDENT	31.95	OA	LEFT	>10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
148	61	FEMALE	4623555	DEPENDENT	31.24	OA	BILATERAL	>10 YRS	0	DECEASED	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
149	60	MALE	463300	DOCTOR	24.77	OA	BILATERAL	5-10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
150	64	MALE	280807	DEPENDENT	26.99	OA	RIGHT	2-5 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
151	75	MALE	456029	SURGEON	24.66	OA	RIGHT	5-10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
152	74	MALE	465521	BUSSINESSMAN	27.76	OA	RIGHT	2-5 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
153	64	FEMALE	461797	HOUSEWIFE	26.61	OA	RIGHT	5-10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
154	53	FEMALE	465952	HOUSEWIFE	28.36	OA	BILATERAL	>10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
155	66	MALE	466822	RETIRED	27.78	OA	LEFT	>10 YRS	1	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
156	66	FEMALE	468391	HOUSEWIFE	26.93	OA	LEFT	5-10 YRS	1	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
157	67	FEMALE	370170	DEPENDENT	28.60	OA	LEFT	5-10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
158	68	MALE	468782	DEPENDENT	26.40	OA	BILATERAL	>10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
159	58	FEMALE	472269	HOUSEWIFE	29.36	OA	RIGHT	5-10 YRS	2	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
160	62	FEMALE	466060	DEPENDENT	28.71	OA	BILATERAL	5-10 YRS	1	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
161	76	MALE	444769	FARMER	32.46	OA	RIGHT	>10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
162	59	FEMALE	247231	HOUSEWIFE	27.82	OA	BILATERAL	2-5 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
163	56	FEMALE	474967	HOUSEWIFE	25.99	OA	BILATERAL	2-5 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
164	65	FEMALE	409303	DEPENDENT	27.66	OA	BILATERAL	5-10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
165	66	FEMALE	488220	RETIRED	28.01	OA	BILATERAL	>10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
166	45	FEMALE	488609	HOUSEWIFE	26.40	OA	LEFT	2-5 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
167	44	FEMALE	471949	HOUSEWIFE	29.36	RA	RIGHT	>10 YRS	1	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
168	86	FEMALE	471162	DEPENDENT	28.73	OA	RIGHT	2-5 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
169	50	FEMALE	490230	HOUSEWIFE	28.16	OA	BILATERAL	2-5 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
170	50	FEMALE	86980	HOUSEWIFE	27.68	OA	RIGHT	>10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
171	68	FEMALE	491091	DEPENDENT	25.39	OA	BILATERAL	2-5 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
172	65	FEMALE	493352	HOUSEWIFE	30.11	RA	BILATERAL	5-10 YRS	3	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
173	46	FEMALE	297946	HOUSEWIFE	27.82	OA	BILATERAL	>10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
174	65	FEMALE	490367	HOUSEWIFE	29.41	OA	BILATERAL	>10 YRS	2	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
175	82	MALE	495873	DEPENDENT	27.76	OA	LEFT	5-10 YRS	1	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
176	51	FEMALE	496724	HOUSEWIFE	27.06	OA	BILATERAL	5-10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
177	65	MALE	498474	FARMER	27.99	OA	BILATERAL	5-10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
178	62	MALE	316902	FARMER	28.73	OA	LEFT	2-5 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	YES	NO	YES	PAIN WITH DIFFICULTY IN WALKING
179	70	FEMALE	504936	HOUSEWIFE	29.36	OA	LEFT	>10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
180	54	FEMALE	504594	HOUSEWIFE	30.46	OA	BILATERAL	5-10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
181	50	FEMALE	506163	HOUSEWIFE	29.32	OA	LEFT	2-5 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
182	58	MALE	504641	FARMER	28.67	OA	BILATERAL	5-10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
183	65	MALE	507471	RETIRED	27.12	OA	BILATERAL	>10 YRS	1	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	YES	YES	YES	PAINFUL AND DIFFICULTY WALKING RIGHT / LOOSENING OF IMPLANT
184	57	FEMALE	228533	HOUSEWIFE	26.40	OA	BILATERAL	>10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
185	67	FEMALE	509039	HOUSEWIFE	29.41	OA	RIGHT	5-10 YRS	1	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
186	70	MALE	509434	RETIRED	27.12	OA	LEFT	5-10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
187	71	FEMALE	508427	DEPENDENT	25.90	OA	RIGHT	5-10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
188	68	FEMALE	510334	DEPENDENT	30.44	OA	LEFT	>10 YRS	2	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
189	63	MALE	496705	RETIRED	25.59	OA	RIGHT	5-10 YRS	2	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
190	80	FEMALE	499660	DEPENDENT	30.48	OA	LEFT	>10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
191	61	MALE	513538	RETIRED	25.21	OA	LEFT	5-10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
192	58	FEMALE	515719	HOUSEWIFE	30.86	OA	BILATERAL	>10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
193	66	FEMALE	523906	DEPENDENT	31.25	OA	LEFT	>10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
194	67	FEMALE	524100	DEPENDENT	25.50	OA	BILATERAL	2-5 YRS	2	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
195	53	FEMALE	528315	DOCTOR	30.00	OA	BILATERAL	>10 YRS	1	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
196	86	FEMALE	530444	DEPENDENT	29.41	OA	BILATERAL	>10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
197	71	MALE	524621	DEPENDENT	31.51	OA	BILATERAL	>10 YRS	0	DECEASED	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
198	67	FEMALE	41847	DEPENDENT	27.66	OA	LEFT	5-10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
199	76	FEMALE	240235	DEPENDENT	27.66	OA	LEFT	5-10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
200	55	FEMALE	476650	HOUSEWIFE	29.76	OA	BILATERAL	2-5 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
201	60	FEMALE	535593	DOCTOR	25.97	OA	BILATERAL	>10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
202	55	FEMALE	492303	HOUSEWIFE	28.98	OA	BILATERAL	>10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	YES	NO	NO	NONE
203	76	FEMALE	541066	HOUSEWIFE	27.34	OA	RIGHT	>10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
204	64	FEMALE	119406	RETIRED	25.74	OA	RIGHT	>10 YRS	2	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
205	63	FEMALE	546341	HOUSEWIFE	28.60	OA	BILATERAL	5-10 YRS	2	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
206	60	FEMALE	554198	HOUSEWIFE	33.51	OA	LEFT	5-10 YRS	2	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
207	69	MALE	552499	RETIRED	25.68	OA	BILATERAL	>10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
208	45	FEMALE	557466	HOUSEWIFE	29.73	OA	BILATERAL	5-10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
209	78	MALE	562431	RETIRED	28.04	OA	BILATERAL	5-10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
210	60	MALE	560173	RETIRED	33.13	OA	BILATERAL	>10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
211	63	FEMALE	36684	HOUSEWIFE	25.76	OA	BILATERAL	>10 YRS	1	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	YES	NO	NO	NONE
212	68	FEMALE	566374	HOUSEWIFE	26.37	OA	BILATERAL	>10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
213	72	MALE	562830	FARMER	26.15	OA	RIGHT	5-10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
214	54	FEMALE	567491	HOUSEWIFE	27.02	OA	BILATERAL	>10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
215	70	MALE	570515	FARMER	31.56	OA	RIGHT	5-10 YRS	0	DECEASED	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
216	58	FEMALE	519127	HOUSEWIFE	26.47	OA	BILATERAL	5-10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
217	60	MALE	558582	RETIRED	26.40	OA	BILATERAL	5-10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
218	51	FEMALE	86980	HOUSEWIFE	24.66	OA	LEFT	2-5 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	YES	YES	YES	PAIN AND SWELLING
219	65	FEMALE	21881	HOUSEWIFE	26.61	OA	RIGHT	5-10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
220	70	MALE	569712	DEPENDENT	24.66	OA	LEFT	>10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE

S. NO	Age (yrs)	Gender	MRD No	Occupation	BMI	Diagnosis	Knee Involved	Duration of complaints	Charlson Comorbidity Index	Mortality	Length of stay (days)	COMPLICATIONS AFTER TKA	READMISSION	REASON FOR READMISSION	WAS REASON FOR READMISSION VISIT WAS MEDICAL OR SURGICAL	READMISSION WAS PLANNED OR UNPLANNED	TIME OF READMISSION AFTER TKA	LENGTH OF STAY IN HOSPITAL	TREATMENT GIVEN DURING READMISSION	UNPLANNED VISIT TO HOSPITAL	UNPLANNED VISIT AFTER TKA ON 30 DAYS FOLLOW UP	UNPLANNED VISIT AFTER TKA ON 90 DAYS FOLLOW UP	REASON FOR UNPLANNED VISIT
221	83	MALE	530069	DEPENDENT	34.02	OA	RIGHT	5-10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
222	60	FEMALE	558367	DEPENDENT	28.60	OA	LEFT	5-10 YRS	3	NO	6	NONE	YES	LEFT LOWER LIMB WEAKNESS	SURGICAL	PLANNED	3 MONTHS	10 DAYS	SPINAL TUMOUR EXCISION	YES	NO	YES	LEFT LOWER LIMB WEAKNESS
223	65	MALE	577595	FARMER	26.58	OA	BILATERAL	5-10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
224	55	MALE	576487	FARMER	25.64	OA	BILATERAL	>10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
225	55	FEMALE	578518	HOUSEWIFE	30.11	OA	LEFT	2-5 YRS	1	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
226	61	MALE	513538	DEPENDENT	28.41	OA	RIGHT	5-10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
227	72	FEMALE	580205	DEPENDENT	26.99	OA	BILATERAL	>10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
228	62	FEMALE	208489	DEPENDENT	27.99	OA	LEFT	>10 YRS	0	DECEASED	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
229	66	MALE	580202	RETIRED	28.36	OA	RIGHT	2-5 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
230	55	FEMALE	582232	HOUSEWIFE	32.15	OA	LEFT	2-5 YRS	1	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
231	46	FEMALE	580207	HOUSEWIFE	28.73	OA	LEFT	>10 YRS	1	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
232	60	FEMALE	522349	HOUSEWIFE	30.44	OA	RIGHT	>10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
233	70	FEMALE	582611	DEPENDENT	31.24	OA	RIGHT	>10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
234	63	FEMALE	587543	HOUSEWIFE	29.73	OA	BILATERAL	2-5 YRS	0	NO	7	NONE	YES	PAIN AND DISCHARGE FROM SURGICAL SITE	SURGICAL	UNPLANNED	15 DAYS	1 DAY	KNEE ARTHROTOMY AND LAVAGE	YES	YES	YES	PAINFUL KNEE WITH DISCHARGE FROM SURGICAL SITE
235	75	MALE	549203	DEPENDENT	26.58	OA	RIGHT	5-10 YRS	1	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	YES	NO	YES	PAIN WITH DIFFICULTY IN WALKING
236	64	MALE	591094	FARMER	27.76	OA	BILATERAL	>10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
237	73	FEMALE	577559	DEPENDENT	26.40	OA	LEFT	5-10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
238	41	FEMALE	594732	HOUSEWIFE	29.05	OA	RIGHT	>10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
239	66	MALE	597471	FARMER	27.17	OA	BILATERAL	5-10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
240	74	MALE	241022	DEPENDENT	25.59	OA	RIGHT	5-10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
241	67	FEMALE	607621	DEPENDENT	31.65	OA	LEFT	>10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
242	74	MALE	71644	RETIRED	33.64	OA	LEFT	>10 YRS	1	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
243	50	FEMALE	611295	HOUSEWIFE	26.40	OA	RIGHT	>10 YRS	1	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
244	63	FEMALE	618942	HOUSEWIFE	29.05	RA	RIGHT	5-10 YRS	3	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
245	53	FEMALE	614673	HOUSEWIFE	25.39	OA	BILATERAL	5-10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
246	65	FEMALE	621095	HOUSEWIFE	25.95	OA	BILATERAL	>10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
247	68	FEMALE	622494	HOUSEWIFE	31.64	OA	BILATERAL	5-10 YRS	1	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
248	65	MALE	620877	FARMER	27.17	OA	LEFT	5-10 YRS	1	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
249	62	MALE	624965	RETIRED	26.22	OA	RIGHT	2-5 YRS	1	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	YES	YES	YES	PAIN AND SWELLING
250	52	FEMALE	5098	HOUSEWIFE	27.02	OA	RIGHT	>10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
251	63	MALE	608426	DEPENDENT	25.28	OA	LEFT	>10 YRS	2	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
252	70	FEMALE	633818	DEPENDENT	25.99	OA	RIGHT	5-10 YRS	1	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
253	68	MALE	635083	DEPENDENT	26.25	OA	RIGHT	5-10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
254	65	MALE	82875	DEPENDENT	24.54	OA	RIGHT	>10 YRS	2	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
255	60	MALE	547513	FARMER	30.59	OA	LEFT	5-10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
256	64	MALE	637269	RETIRED	27.47	OA	RIGHT	>10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
257	78	FEMALE	644801	DEPENDENT	29.06	OA	LEFT	5-10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
258	80	FEMALE	636015	DEPENDENT	27.05	OA	LEFT	5-10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
259	74	MALE	612008	RETIRED	27.68	OA	BILATERAL	5-10 YRS	4	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
260	68	MALE	627300	DEPENDENT	26.42	OA	BILATERAL	5-10 YRS	3	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
261	65	FEMALE	112261	DEPENDENT	25.28	OA	LEFT	2-5 YRS	3	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
262	68	MALE	562830	TAILOR	28.39	OA	LEFT	5-10 YRS	3	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
263	84	MALE	653560	RETIRED	32.49	OA	RIGHT	5-10 YRS	4	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
264	55	FEMALE	654434	HOUSEWIFE	26.56	OA	BILATERAL	5-10 YRS	2	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
265	69	FEMALE	658305	DEPENDENT	30.10	OA	RIGHT	2-5 YRS	3	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
266	70	FEMALE	598194	DEPENDENT	25.31	OA	BILATERAL	>10 YRS	4	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	YES	NO	YES	BODYACHES
267	59	FEMALE	661445	HOUSEWIFE	34.53	OA	BILATERAL	2-5 YRS	2	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
268	64	FEMALE	655774	HOUSEWIFE	26.56	OA	RIGHT	2-5 YRS	3	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
269	71	MALE	662912	RETIRED	25.83	OA	RIGHT	5-10 YRS	4	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
270	60	FEMALE	669117	HOUSEWIFE	33.91	RA	BILATERAL	1-2 YRS	2	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
271	71	MALE	669129	BUSSINESSMAN	31.48	OA	BILATERAL	2-5 YRS	4	NO	8	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
272	50	FEMALE	604224	HOUSEWIFE	34.20	OA	BILATERAL	2-5 YRS	2	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
273	62	MALE	668548	RETIRED	29.76	OA	BILATERAL	5-10 YRS	3	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
274	68	MALE	666560	HOUSEWIFE	27.36	OA	BILATERAL	5-10 YRS	4	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
275	62	FEMALE	65128	HOUSEWIFE	26.51	OA	RIGHT	2-5 YRS	3	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
276	55	MALE	673515	DEPENDENT	27.14	OA	BILATERAL	5-10 YRS	3	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
277	58	FEMALE	902861	DEPENDENT	24.91	OA	LEFT	2-5 YRS	2	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
278	69	MALE	637269	RETIRED	25.93	OA	LEFT	5-10 YRS	4	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
279	63	FEMALE	8955	DEPENDENT	24.22	OA	RIGHT	2-5 YRS	3	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
280	55	FEMALE	676138	HOUSEWIFE	27.68	OA	BILATERAL	2-5 YRS	2	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
281	70	FEMALE	678134	HOUSEWIFE	29.74	OA	LEFT	5-10 YRS	3	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
282	55	FEMALE	671270	DEPENDENT	35.22	OA	BILATERAL	2-5 YRS	3	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
283	66	MALE	668943	RETIRED	25.83	OA	BILATERAL	2-5 YRS	3	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
284	64	FEMALE	683282	HOUSEWIFE	28.34	OA	BILATERAL	5-10 YRS	3	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
285	83	MALE	530069	RETIRED	25.83	OA	RIGHT	>10 YRS	4	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
286	57	FEMALE	683501	HOUSEWIFE	33.46	OA	BILATERAL	2-5 YRS	2	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
287	57	FEMALE	687130	WORKING	25.65	OA	BILATERAL	2-5 YRS	2	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
288	65	MALE	539992	RETIRED	27.68	OA	BILATERAL	2-5 YRS	3	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
289	61	MALE	687923	FARMER	25.83	OA	BILATERAL	2-5 YRS	3	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
290	67	MALE	466822	DEPENDENT	26.42	OA	RIGHT	2-5 YRS	3	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
291	55	FEMALE	689448	HOUSEWIFE	35.29	OA	BILATERAL	1-2 YRS	2	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
292	72	FEMALE	679837	HOUSEWIFE	26.42	OA	BILATERAL	5-10 YRS	4	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
293	67	FEMALE	688934	HOUSEWIFE	33.80	OA	BILATERAL	2-5 YRS	3	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE

S. NO	Age (yrs)	Gender	MRD No	Occupation	BMI	Diagnosis	Knee Involved	Duration of complaints	Charlson Comorbidity Index	Mortality	Length of stay (days)	COMPLICATIONS AFTER TKA	READMISSION	REASON FOR READMISSION	WAS REASON FOR READMISSION VISIT WAS MEDICAL OR SURGICAL	READMISSION WAS PLANNED OR UNPLANNED	TIME OF READMISSION AFTER TKA	LENGTH OF STAY IN HOSPITAL	TREATMENT GIVEN DURING READMISSION	UNPLANNED VISIT TO HOSPITAL	UNPLANNED VISIT AFTER TKA ON 30 DAYS FOLLOW UP	UNPLANNED VISIT AFTER TKA ON 90 DAYS FOLLOW UP	REASON FOR UNPLANNED VISIT
294	72	MALE	677044	DEPENDENT	24.91	OA	RIGHT	<1 YRS	4	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
295	40	MALE	691738	BUSSINESSMAN	27.74	OA	RIGHT	1-2 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
296	65	MALE	694961	RETIRED	26.81	OA	BILATERAL	5-10 YRS	3	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
297	74	MALE	374296	DEPENDENT	25.83	OA	RIGHT	>10 YRS	5	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
298	53	FEMALE	697036	HOUSEWIFE	26.67	OA	BILATERAL	1-2 YRS	2	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
299	55	FEMALE	689746	DEPENDENT	35.64	OA	BILATERAL	2-5 YRS	2	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
300	75	FEMALE	704834	HOUSEWIFE	26.51	OA	BILATERAL	>10 YRS	5	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
301	57	FEMALE	704639	HOUSEWIFE	33.69	OA	BILATERAL	>10 YRS	2	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
302	69	FEMALE	185955	HOUSEWIFE	28.26	OA	RIGHT	5-10 YRS	4	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
303	70	MALE	709421	DEPENDENT	25.83	OA	BILATERAL	5-10 YRS	4	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
304	65	FEMALE	708986	RETIRED	28.26	OA	BILATERAL	2-5 YRS	4	NO	10	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
305	80	MALE	709583	DEPENDENT	26.42	OA	RIGHT	5-10 YRS	5	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
306	60	MALE	710731	HOUSEWIFE	34.95	OA	LEFT	1-2 YRS	3	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
307	58	MALE	67727	DEPENDENT	25.01	OA	LEFT	5-10 YRS	2	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
308	60	FEMALE	26492	HOUSEWIFE	27.34	OA	BILATERAL	2-5 YRS	2	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
309	55	FEMALE	716614	DEPENDENT	27.08	OA	BILATERAL	5-10 YRS	2	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
310	58	FEMALE	718165	DOCTOR	26.22	OA	BILATERAL	2-5 YRS	2	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
311	55	FEMALE	708899	HOUSEWIFE	26.53	OA	BILATERAL	2-5 YRS	2	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
312	75	MALE	722937	RETIRED	33.95	OA	BILATERAL	>10 YRS	4	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
313	68	MALE	655083	DEPENDENT	34.60	OA	RIGHT	5-10 YRS	3	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
314	53	MALE	724465	BUSSINESSMAN	25.95	OA	LEFT	2-5 YRS	2	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
315	60	FEMALE	712246	HOUSEWIFE		OA	BILATERAL	2-5 YRS	2	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
316	42	FEMALE	729824	LABOURER	22.5	OA	BILATERAL	2-5 YRS	1	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
317	75	MALE	731911	RETIRED	27.2	OA	BILATERAL	>10 YRS	4	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
318	87	FEMALE	732914	DEPENDENT	27	OA	BILATERAL	5-10 YRS	5	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
319	37	FEMALE	733272	HOUSEWIFE	24.7	OA	LEFT	2-5 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
320	55	FEMALE	689274	HOUSEWIFE	23.5	OA	BILATERAL	2-5 YRS	2	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
321	78	FEMALE	738269	DEPENDENT	27.2	OA	RIGHT	5-10 YRS	4	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
322	75	FEMALE	739582	HOUSEWIFE	26.2	OA	LEFT	2-5 YRS	3	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
323	65	FEMALE	74142	HOUSEWIFE	26	OA	BILATERAL	2-5 YRS	3	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
324	70	FEMALE	5656415	HOUSEWIFE	24.2	OA	LEFT	5-10 YRS	3	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
325	62	MALE	741372	RETIRED	25.8	OA	LEFT	5-10 YRS	3	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
326	47	MALE	598957	BUSSINESSMAN	26	OA	LEFT	2-5 YRS	1	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
327	64	FEMALE	743852	HOUSEWIFE	26.2	OA	BILATERAL	5-10 YRS	3	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
328	64	FEMALE	744055	DEPENDENT	24.5	OA	LEFT	5-10 YRS	3	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
329	65	MALE	621095	DEPENDENT	25.4	OA	LEFT	5-10 YRS	3	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
330	57	MALE	747187	HOUSEWIFE	26.5	OA	BILATERAL	2-5 YRS	2	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
331	50	FEMALE	713380	DEPENDENT	25.9	OA	LEFT	2-5 YRS	1	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
332	70	FEMALE	749344	HOUSEWIFE	27.7	OA	LEFT	5-10 YRS	3	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
333	69	FEMALE	659530	HOUSEWIFE	27.7	OA	BILATERAL	5-10 YRS	4	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
334	59	FEMALE	6680	HOUSEWIFE	22.2	OA	BILATERAL	2-5 YRS	3	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
335	66	FEMALE	752388	DEPENDENT	26.8	OA	BILATERAL	5-10 YRS	4	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
336	60	FEMALE	754147	HOUSEWIFE	25.6	OA	BILATERAL	2-5 YRS	2	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
337	66	FEMALE	754163	HOUSEWIFE	24.9	OA	BILATERAL	5-10 YRS	3	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
338	60	FEMALE	755844	HOUSEWIFE	25.6	OA	BILATERAL	5-10 YRS	2	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
339	60	FEMALE	758892	HOUSEWIFE	25.6	OA	BILATERAL	2-5 YRS	2	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
340	65	MALE	756127	RETIRED	27	OA	BILATERAL	5-10 YRS	3	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
341	53	FEMALE	759561	HOUSEWIFE	25.7	OA	BILATERAL	1-2 YRS	2	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
342	51	FEMALE	769219	HOUSEWIFE	26.9	OA	BILATERAL	2-5 YRS	2	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
343	60	FEMALE	40401	HOUSEWIFE	26.6	OA	BILATERAL	2-5 YRS	3	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
344	44	FEMALE	770754	HOUSEWIFE	26	OA	RIGHT	2-5 YRS	1	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
345	70	FEMALE	324524	HOUSEWIFE	25.6	OA	BILATERAL	>10 YRS	4	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
346	59	FEMALE	772586	HOUSEWIFE	25.6	OA	BILATERAL	2-5 YRS	2	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
347	62	FEMALE	775469	HOUSEWIFE	25.7	OA	BILATERAL	2-5 YRS	3	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
348	61	FEMALE	779668	DEPENDENT	26.3	OA	BILATERAL	2-5 YRS	3	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
349	61	FEMALE	772875	HOUSEWIFE	25.6	OA	BILATERAL	2-5 YRS	3	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
350	57	FEMALE	159956	HOUSEWIFE	23.1	OA	BILATERAL	2-5 YRS	2	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
351	66	MALE	580202	DEPENDENT	25.8	OA	LEFT	2-5 YRS	3	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
352	70	MALE	744380	RETIRED	24.4	OA	RIGHT	5-10 YRS	3	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
353	76	MALE	784834	RETIRED	26.98	OA	BILATERAL	5-10 YRS	4	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
354	68	MALE	787246	RETIRED	24.9	OA	BILATERAL	2-5 YRS	3	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
355	56	FEMALE	138382	HOUSEWIFE	25.8	OA	LEFT	2-5 YRS	2	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
356	67	FEMALE	21651	DEPENDENT	23.3	OA	RIGHT	5-10 YRS	3	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
357	74	MALE	612008	DEPENDENT	27.1	OA	LEFT	>10 YRS	4	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
358	61	FEMALE	397206	HOUSEWIFE	23.4	OA	BILATERAL	1-2 YRS	3	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
359	60	FEMALE	771922	HOUSEWIFE	27.8	OA	BILATERAL	2-5 YRS	2	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
360	69	FEMALE	804726	HOUSEWIFE	25.6	OA	BILATERAL	>10 YRS	4	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
361	71	MALE	805991	DEPENDENT	25.7	OA	BILATERAL	>10 YRS	5	NO	8	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
362	69	FEMALE	301190	DEPENDENT	26.1	OA	BILATERAL	5-10 YRS	3	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
363	73	FEMALE	63111	HOUSEWIFE	25	OA	BILATERAL	>10 YRS	4	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
364	62	FEMALE	78815	HOUSEWIFE	26.3	OA	BILATERAL	2-5 YRS	3	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
365	54	FEMALE	809133	HOUSEWIFE	25.5	OA	BILATERAL	2-5 YRS	2	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
366	61	FEMALE	807480	HOUSEWIFE	26.3	OA	BILATERAL	2-5 YRS	3	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
367	75	MALE	722937	DEPENDENT	25.7	OA	LEFT	5-10 YRS	4	DECEASED	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
368	68	FEMALE	814242	HOUSEWIFE	26.3	OA	LEFT	5-10 YRS	4	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
369	67	FEMALE	807822	DEPENDENT	24.2	OA	BILATERAL	5-10 YRS	3	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
370	57	FEMALE	797695	HOUSEWIFE	23.8	OA	BILATERAL	2-5 YRS	2	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE

S. NO	Age (yrs)	Gender	MRD No	Occupation	BMI	Diagnosis	Knee Involved	Duration of complaints	Charlson Comorbidity Index	Mortality	Length of stay (days)	COMPLICATIONS AFTER TKA	READMISSION	REASON FOR READMISSION	WAS REASON FOR READMISSION VISIT WAS MEDICAL OR SURGICAL	READMISSION WAS PLANNED OR UNPLANNED	TIME OF READMISSION AFTER TKA	LENGTH OF STAY IN HOSPITAL	TREATMENT GIVEN DURING READMISSION	UNPLANNED VISIT TO HOSPITAL	UNPLANNED VISIT AFTER TKA ON 30 DAYS FOLLOW UP	UNPLANNED VISIT AFTER TKA ON 90 DAYS FOLLOW UP	REASON FOR UNPLANNED VISIT
371	65	MALE	815666	RETIRED	25.8	OA	LEFT	2-5 YRS	3	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
372	68	MALE	113838	RETIRED	26.4	OA	BILATERAL	5-10 YRS	4	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
373	50	FEMALE	819731	HOUSEWIFE	27	OA	BILATERAL	2-5 YRS	1	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
374	67	MALE	279242	RETIRED	25.7	OA	BILATERAL	2-5 YRS	3	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
375	48	FEMALE	822013	HOUSEWIFE	22	OA	BILATERAL	2-5 YRS	2	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
376	66	FEMALE	754163	HOUSEWIFE	24.3	OA	LEFT	5-10 YRS	5	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
377	52	FEMALE	796655	HOUSEWIFE	24.2	OA	LEFT	2-5 YRS	2	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
378	64	FEMALE	543344	HOUSEWIFE	24.4	RA	BILATERAL	5-10 YRS	3	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
379	70	FEMALE	825905	HOUSEWIFE	27	OA	BILATERAL	>10 YRS	3	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
380	67	FEMALE	826901	HOUSEWIFE	26.4	OA	BILATERAL	5-10 YRS	3	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
381	51	FEMALE	827771	DEPENDENT	25.7	OA	RIGHT	2-5 YRS	2	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
382	53	FEMALE	833788	HOUSEWIFE	27	OA	BILATERAL	2-5 YRS	2	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
383	70	FEMALE	833729	HOUSEWIFE	26.4	OA	BILATERAL	2-5 YRS	3	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
384	65	FEMALE	837992	HOUSEWIFE	27	OA	BILATERAL	2-5 YRS	4	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
385	68	FEMALE	840848	DEPENDENT	23.8	OA	BILATERAL	5-10 YRS	3	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
386	75	MALE	440788	DEPENDENT	22.6	OA	BILATERAL	5-10 YRS	5	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
387	58	FEMALE	844092	HOUSEWIFE	22.5	RA	BILATERAL	2-5 YRS	2	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
388	64	MALE	848822	POLITICIAN	26.7	OA	BILATERAL	2-5 YRS	3	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
389	78	FEMALE	848463	HOUSEWIFE	26.3	OA	BILATERAL	5-10 YRS	5	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
390	71	FEMALE	553348	HOUSEWIFE	25.4	OA	BILATERAL	2-5 YRS	4	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
391	43	FEMALE	848856	HOUSEWIFE	22.8	RA	BILATERAL	2-5 YRS	1	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
392	58	FEMALE	869901	HOUSEWIFE	25.6	OA	BILATERAL	2-5 YRS	2	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
393	63	MALE	147142	RETIRED	24.6	OA	RIGHT	<1 YRS	3	DECEASED	7	NONE	YES	KNEE PAIN AND DISCHARGE FROM SURGICAL SITE	SURGICAL	UNPLANNED	1 MONTH	5 DAY	KNEE ARHTROTOMY AND LAVAGE	YES	YES	YES	PAINFUL KNEE WITH DISCHARGE FROM SURGICAL SITE
394	55	FEMALE	855967	HOUSEWIFE	25.7	OA	BILATERAL	2-5 YRS	4	NO	8	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
395	57	FEMALE	855821	HOUSEWIFE	25.7	OA	BILATERAL	2-5 YRS	2	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
396	58	FEMALE	857179	DEPENDENT	24.2	OA	BILATERAL	2-5 YRS	2	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
397	70	MALE	863946	DEPENDENT	23.9	OA	BILATERAL	5-10 YRS	3	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
398	61	MALE	547513	RETIRED	27.7	OA	LEFT	<1 YRS	1	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
399	58	FEMALE	668292	DEPENDENT	26	OA	RIGHT	2-5 YRS	2	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
400	66	MALE	577595	RETIRED	23.7	OA	LEFT	1-2 YRS	3	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
401	63	FEMALE	869350	HOUSEWIFE	24.2	OA	BILATERAL	2-5 YRS	3	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
402	58	FEMALE	43583	DEPENDENT	25.4	OA	LEFT	2-5 YRS	3	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
403	72	MALE	872560	RETIRED	28	OA	RIGHT	5-10 YRS	5	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
404	61	MALE	879284	DEPENDENT	25.3	OA	RIGHT	2-5 YRS	3	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
405	64	FEMALE	880790	HOUSEWIFE	27.3	OA	BILATERAL	5-10 YRS	4	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
406	51	FEMALE	884953	HOUSEWIFE	25.3	OA	BILATERAL	2-5 YRS	2	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
407	58	FEMALE	252502	DEPENDENT	24.2	OA	BILATERAL	2-5 YRS	2	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
408	70	MALE	889353	FARMER	28.4	OA	BILATERAL	5-10 YRS	4	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
409	44	FEMALE	5175	TEACHER	22.5	OA	LEFT	2-5 YRS	2	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
410	53	FEMALE	820663	TEACHER	25	OA	BILATERAL	2-5 YRS	2	NO	8	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
411	77	FEMALE	891459	HOUSEWIFE	29.9	OA	BILATERAL	2-5 YRS	4	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	YES	YES	YES	SUPERFICIAL SOFT TISSUE INFECTION
412	70	MALE	897395	RETIRED	25.8	OA	BILATERAL	2-5 YRS	4	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
413	52	FEMALE	636015	WORKING	24.3	OA	RIGHT	2-5 YRS	2	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
414	53	FEMALE	903197	HOUSEWIFE	23.1	OA	BILATERAL	1-2 YRS	2	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
415	60	FEMALE	902001	HOUSEWIFE	28.6	OA	BILATERAL	5-10 YRS	2	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
416	73	FEMALE	905266	HOUSEWIFE	26.9	OA	BILATERAL	5-10 YRS	5	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
417	79	FEMALE	889880	DEPENDENT	26.1	OA	RIGHT	5-10 YRS	5	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
418	60	FEMALE	897457	DEPENDENT	23.9	OA	BILATERAL	5-10 YRS	2	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
419	70	FEMALE	909261	HOUSEWIFE	22.5	OA	BILATERAL	5-10 YRS	4	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
420	55	FEMALE	907421	HOUSEWIFE	24.5	OA	BILATERAL	2-5 YRS	2	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
421	76	FEMALE	913425	DEPENDENT	25.9	OA	BILATERAL	>10 YRS	4	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
422	58	FEMALE	908313	DEPENDENT	23.3	OA	BILATERAL	2-5 YRS	2	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
423	51	FEMALE	907753	HOUSEWIFE	25.9	OA	BILATERAL	2-5 YRS	2	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
424	70	FEMALE	917430	DEPENDENT	24.9	OA	BILATERAL	>10 YRS	3	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
425	55	FEMALE	929336	BUSSINESSMAN	24.9	OA	BILATERAL	>10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
426	49	FEMALE	931333	HOUSEWIFE	24.9	OA	BILATERAL	5-10 YRS	1	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
427	64	MALE	386689	RETIRED	24.9	OA	BILATERAL	2-5 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
428	55	FEMALE	934187	HOUSEWIFE	24.9	OA	BILATERAL	>10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
429	60	MALE	544864	FARMER	24.9	OA	RIGHT	5-10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
430	60	FEMALE	798994	HOUSEWIFE	24.9	OA	RIGHT	5-10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
431	69	FEMALE	886879	RETIRED	24.9	OA	LEFT	2-5 YRS	1	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
432	70	MALE	245972	DEPENDENT	24.9	OA	LEFT	>10 YRS	1	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
433	54	FEMALE	33637	HOUSEWIFE	24.9	OA	BILATERAL	5-10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
434	78	FEMALE	942709	DEPENDENT	24.9	OA	RIGHT	5-10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
435	74	FEMALE	936591	DEPENDENT	24.9	OA	RIGHT	>10 YRS	1	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
436	62	FEMALE	945208	RETIRED	24.9	OA	BILATERAL	2-5 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
437	48	FEMALE	913413	HOUSEWIFE	24.9	OA	BILATERAL	5-10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
438	44	FEMALE	6877	HOUSEWIFE	24.9	OA	LEFT	5-10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
439	66	FEMALE	812880	DEPENDENT	24.9	OA	BILATERAL	5-10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
440	69	FEMALE	53959	DEPENDENT	24.9	OA	RIGHT	>10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
441	68	FEMALE	951851	DEPENDENT	24.9	OA	LEFT	5-10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
442	67	FEMALE	841460	DEPENDENT	24.9	OA	LEFT	5-10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
443	52	FEMALE	969911	HOUSEWIFE	24.9	OA	BILATERAL	>10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
444	47	FEMALE	946037	HOUSEWIFE	24.9	OA	BILATERAL	5-10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE

S. NO	Age (yrs)	Gender	MRD No	Occupation	BMI	Diagnosis	Knee Involved	Duration of complaints	Charlson Comorbidity Index	Mortality	Length of stay (days)	COMPLICATIONS AFTER TKA	READMISSION	REASON FOR READMISSION	WAS REASON FOR READMISSION VISIT WAS MEDICAL OR SURGICAL	READMISSION WAS PLANNED OR UNPLANNED	TIME OF READMISSION AFTER TKA	LENGTH OF STAY IN HOSPITAL	TREATMENT GIVEN DURING READMISSION	UNPLANNED VISIT TO HOSPITAL	UNPLANNED VISIT AFTER TKA ON 30 DAYS FOLLOW UP	UNPLANNED VISIT AFTER TKA ON 90 DAYS FOLLOW UP	REASON FOR UNPLANNED VISIT
445	76	FEMALE	674647	DEPENDENT	24.9	OA	RIGHT	5-10 YRS	2	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
446	76	FEMALE	973982	DEPENDENT	24.9	OA	RIGHT	2-5 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
447	68	FEMALE	976566	RETIRED	24.9	OA	RIGHT	>10 YRS	2	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
448	61	FEMALE	977452	DEPENDENT	24.9	OA	BILATERAL	>10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
449	55	MALE	977668	FARMER	24.9	OA	BILATERAL	2-5 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
450	61	MALE	886530	FARMER	24.9	OA	RIGHT	5-10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
451	57	FEMALE	983360	HOUSEWIFE	24.9	OA	RIGHT	>10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
452	58	FEMALE	985219	HOUSEWIFE	24.9	OA	RIGHT	5-10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
453	56	FEMALE	987732	TEACHER	24.9	OA	LEFT	5-10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
454	57	FEMALE	989430	HOUSEWIFE	24.9	OA	RIGHT	5-10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
455	48	MALE	990113	PROFESSIONAL	24.9	OA	RIGHT	>10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
456	62	FEMALE	988332	HOUSEWIFE	24.9	RA	RIGHT	5-10 YRS	1	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
457	46	FEMALE	991619	HOUSEWIFE	24.9	OA	RIGHT	>10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
458	55	FEMALE	985776	HOUSEWIFE	24.9	OA	LEFT	2-5 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
459	72	FEMALE	999925	DEPENDENT	24.9	OA	RIGHT	5-10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
460	55	FEMALE	1001292	HOUSEWIFE	24.9	OA	BILATERAL	>10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
461	49	FEMALE	1005895	HOUSEWIFE	24.9	OA	RIGHT	>10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
462	60	MALE	544864	FARMER	24.9	OA	LEFT	5-10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
463	56	FEMALE	1008194	HOUSEWIFE	24.9	OA	BILATERAL	5-10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
464	50	MALE	1000450	DEPENDENT	24.9	OA	LEFT	2-5 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
465	60	FEMALE	1012841	HOUSEWIFE	24.9	OA	LEFT	>10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
466	72	MALE	1013891	FARMER	24.9	OA	LEFT	>10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
467	59	FEMALE	1006961	HOUSEWIFE	24.9	OA	RIGHT	>10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
468	49	FEMALE	86672	HOUSEWIFE	24.9	OA	LEFT	2-5 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
469	45	FEMALE	1020738	HOUSEWIFE	24.9	OA	RIGHT	>10 YRS	2	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
470	50	FEMALE	1021845	HOUSEWIFE	24.9	OA	BILATERAL	2-5 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
471	60	FEMALE	1021671	HOUSEWIFE	24.9	OA	BILATERAL	5-10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
472	55	FEMALE	295133	HOUSEWIFE	24.9	OA	LEFT	>10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
473	66	MALE	1023094	FARMER	24.9	OA	BILATERAL	2-5 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
474	47	FEMALE	1005895	HOUSEWIFE	24.9	OA	RIGHT	5-10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	YES	NO	YES	DIFFICULTY WALKING AND LIMB LENGTH DISCREPENCY
475	50	FEMALE	7131	GDA	24.9	OA	RIGHT	>10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
476	71	FEMALE	1026890	HOUSEWIFE	24.9	OA	BILATERAL	2-5 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	YES	YES	YES	TYPHOID FEVER
477	58	FEMALE	191657	CLERICAL STAFF	24.9	OA	BILATERAL	5-10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
478	79	MALE	221194	BUSSINESSMAN	24.9	OA	LEFT	2-5 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
479	65	MALE	1024450	FARMER	24.9	OA	RIGHT	>10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
480	71	MALE	1028531	DEPENDENT	24.9	OA	BILATERAL	5-10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
481	53	FEMALE	882988	HOUSEWIFE	24.9	OA	LEFT	>10 YRS	1	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	YES	NO	YES	CONTINOUS FEVER AND DIFFICULTY BREATHING
482	75	MALE	1029076	RETIRED	24.9	OA	LEFT	>10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
483	67	MALE	1031054	RETIRED	24.9	OA	LEFT	2-5 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
484	59	MALE	1030942	FARMER	24.9	OA	BILATERAL	5-10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
485	62	FEMALE	1032449	HOUSEWIFE	24.9	OA	RIGHT	5-10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
486	63	FEMALE	707891	HOUSEWIFE	24.9	OA	LEFT	2-5 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
487	62	FEMALE	1034079	HOUSEWIFE	24.9	OA	BILATERAL	5-10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
488	52	MALE	1025827	FARMER	24.9	OA	BILATERAL	2-5 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
489	60	FEMALE	1033526	HOUSEWIFE	24.9	OA	BILATERAL	5-10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
490	68	FEMALE	1035264	RETIRED	24.9	OA	RIGHT	5-10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
491	76	MALE	103625	RETIRED	24.9	OA	LEFT	5-10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
492	63	FEMALE	1036866	HOUSEWIFE	24.9	OA	BILATERAL	2-5 YRS	2	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
493	56	FEMALE	987732	HOUSEWIFE	24.9	OA	RIGHT	>10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
494	60	FEMALE	1035168	HOUSEWIFE	24.9	OA	BILATERAL	5-10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
495	57	MALE	1039031	FARMER	24.9	OA	BILATERAL	>10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
496	56	FEMALE	1040682	HOUSEWIFE	24.9	OA	BILATERAL	5-10 YRS	2	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
497	50	FEMALE	1041105	HOUSEWIFE	24.9	OA	BILATERAL	5-10 YRS	1	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
498	80	FEMALE	1031054	DEPENDENT	24.9	OA	LEFT	5-10 YRS	0	NO	6	NONE	YES	DOMESTIC FALL/SOFT TISSUE INJURY	SURGICAL	UNPLANNED	2 MONTHS	3 DAYS	WOUND WASH WITH SUTURING	YES	NO	YES	WOUND OVER LEFT KNEE
499	63	FEMALE	1046824	DEPENDENT	24.9	OA	BILATERAL	5-10 YRS	1	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
500	60	FEMALE	293436	HOUSEWIFE	24.9	OA	BILATERAL	2-5 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
501	59	MALE	1049349	FARMER	24.9	OA	BILATERAL	2-5 YRS	1	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
502	70	MALE	1046241	DEPENDENT	24.9	OA	BILATERAL	5-10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
503	71	FEMALE	825255	DEPENDENT	24.9	OA	LEFT	>10 YRS	4	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
504	79	MALE	1049634	DEPENDENT	24.9	OA	LEFT	5-10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
505	50	MALE	191122	HOUSEWIFE	24.9	OA	LEFT	5-10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
506	71	MALE	197516	DEPENDENT	24.9	OA	BILATERAL	5-10 YRS	4	NO	13	Bleeding from wound site/ wound hematoma	YES	BLEEDING FROM SURGICAL SITE	SURGICAL	UNPLANNED	1 MONTH	15 DAYS	DEBRIDEMENT AND VAC APPLICATION	YES	YES	YES	DISCHARGE AND BLEED FROM SUTURE LINE
507	66	MALE	1056092	FARMER	24.9	OA	BILATERAL	5-10 YRS	2	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
508	63	MALE	1057095	DEPENDENT	24.9	OA	LEFT	5-10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
509	57	FEMALE	977847	HOUSEWIFE	24.9	OA	LEFT	2-5 YRS	1	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
510	54	MALE	923413	RETIRED	24.9	OA	BILATERAL	5-10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	YES	NO	YES	PAIN WITH DIFFICULTY IN WALKING
511	65	MALE	1052079	FARMER	24.9	OA	LEFT	5-10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
512	58	FEMALE	1078447	HOUSEWIFE	24.9	OA	LEFT	>10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
513	75	MALE	1060622	RETIRED	24.9	OA	RIGHT	5-10 YRS	1	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
514	55	MALE	1043188	HOUSEWIFE	24.9	OA	LEFT	>10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE

S. NO	Age (yrs)	Gender	MRD No	Occupation	BMI	Diagnosis	Knee Involved	Duration of complaints	Charlson Comorbidity Index	Mortality	Length of stay (days)	COMPLICATIONS AFTER TKA	READMISSION	REASON FOR READMISSION	WAS REASON FOR READMISSION VISIT WAS MEDICAL OR SURGICAL	READMISSION WAS PLANNED OR UNPLANNED	TIME OF READMISSION AFTER TKA	LENGTH OF STAY IN HOSPITAL	TREATMENT GIVEN DURING READMISSION	UNPLANNED VISIT TO HOSPITAL	UNPLANNED VISIT AFTER TKA ON 30 DAYS FOLLOW UP	UNPLANNED VISIT AFTER TKA ON 90 DAYS FOLLOW UP	REASON FOR UNPLANNED VISIT
515	53	FEMALE	1085299	HOUSEWIFE	24.9	RA	LEFT	5-10 YRS	1	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
516	61	FEMALE	1078369	HOUSEWIFE	24.9	OA	LEFT	5-10 YRS	1	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
517	63	FEMALE	1045800	HOUSEWIFE	24.9	OA	BILATERAL	>10 YRS	1	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
518	72	FEMALE	1088725	HOUSEWIFE	24.9	OA	BILATERAL	5-10 YRS	1	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
519	44	FEMALE	1116203	HOUSEWIFE	24.9	OA	LEFT	>10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
520	61	MALE	1117103	RETIRED	24.9	OA	BILATERAL	5-10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
521	53	FEMALE	1117971	HOUSEWIFE	24.9	OA	BILATERAL	5-10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
522	70	MALE	26983	RETIRED	24.9	OA	RIGHT	>10 YRS	4	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
523	62	FEMALE	25179	DEPENDENT	24.9	OA	RIGHT	5-10 YRS	1	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
524	69	MALE	9005	DEPENDENT	24.9	OA	LEFT	5-10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
525	58	FEMALE	1119445	HOUSEWIFE	24.9	OA	BILATERAL	5-10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
526	67	FEMALE	549129	HOUSEWIFE	24.9	OA	LEFT	>10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
527	55	FEMALE	1121203	HOUSEWIFE	24.9	OA	BILATERAL	>10 YRS	1	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
528	60	FEMALE	6463	DEPENDENT	24.9	OA	RIGHT	>10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
529	55	MALE	222179	FARMER	24.9	OA	RIGHT	5-10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
530	60	FEMALE	1122393	HOUSEWIFE	24.9	OA	BILATERAL	5-10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
531	73	FEMALE	1004243	HOUSEWIFE	24.9	OA	LEFT	>10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
532	55	MALE	1124071	HOUSEWIFE	24.9	OA	LEFT	5-10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
533	73	FEMALE	1124122	DEPENDENT	24.9	OA	LEFT	5-10 YRS	2	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	YES	YES	YES	PAIN IN LEFT KNEE
534	64	FEMALE	1126295	DEPENDENT	24.9	OA	BILATERAL	2-5 YRS	2	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
535	79	FEMALE	1128645	DEPENDENT	24.9	OA	RIGHT	>10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
536	56	FEMALE	1128655	HOUSEWIFE	24.9	OA	BILATERAL	5-10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
537	68	MALE	146128	RETIRED	24.9	OA	RIGHT	5-10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
538	51	FEMALE	971300	HOUSEWIFE	24.9	OA	LEFT	2-5 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
539	75	MALE	249805	RETIRED	24.9	OA	LEFT	5-10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
540	60	MALE	1146574	DEPENDENT	24.9	OA	BILATERAL	1-2 YRS	0	NO	7	NONE	YES	ANEMIA , PERSISTENT FEVER	MEDICAL	UNPLANNED	3 DAYS	1 DAY	TAB NITROFURANTION AND 1 PRBC TRANSFUSED	YES	YES	YES	BURNING MICTURITION
541	69	FEMALE	1149363	HOUSEWIFE	24.9	OA	LEFT	1-2 YRS	2	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
542	74	FEMALE	442888	DEPENDENT	24.9	OA	LEFT	2-5 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
543	56	FEMALE	1150174	DEPENDENT	24.9	OA	LEFT	2-5 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	YES	NO	YES	BURNING MICTURITION
544	65	FEMALE	998560	HOUSEWIFE	24.9	OA	LEFT	5-10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
545	54	MALE	829459	RETIRED	24.9	OA	BILATERAL	>10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	YES	NO	NO	NONE
546	45	FEMALE	1150935	HOUSEWIFE	24.9	OA	BILATERAL	5-10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
547	54	FEMALE	1156716	HOUSEWIFE	24.9	OA	LEFT	5-10 YRS	1	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
548	69	FEMALE	3507	DEPENDENT	24.9	OA	LEFT	>10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
549	73	FEMALE	1159406	DEPENDENT	24.9	OA	BILATERAL	2-5 YRS	1	NO	7	Bleeding from wound site/ wound hematoma	NO	NONE	NONE	NONE	NA	NA	NONE	YES	YES	YES	HEMORRAGIC DISCHARGE FROM DRAIN SITE
550	71	FEMALE	1123496	DEPENDENT	24.9	OA	LEFT	5-10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
551	59	FEMALE	135876	HOUSEWIFE	24.9	OA	BILATERAL	2-5 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
552	70	MALE	1159492	RETIRED	24.9	OA	BILATERAL	2-5 YRS	2	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
553	62	FEMALE	668374	HOUSEWIFE	24.9	OA	BILATERAL	2-5 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
554	70	MALE	1162247	RETIRED	24.9	OA	BILATERAL	>10 YRS	1	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
555	63	FEMALE	689194	HOUSEWIFE	24.9	OA	BILATERAL	2-5 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
556	60	FEMALE	6463	HOUSEWIFE	24.9	OA	LEFT	2-5 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
557	67	FEMALE	1166566	HOUSEWIFE	24.9	OA	BILATERAL	2-5 YRS	2	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	YES	YES	YES	BURNING MICTURITION
558	73	MALE	569188	RETIRED	24.9	OA	LEFT	5-10 YRS	2	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
559	57	FEMALE	1168261	RETIRED	24.9	OA	BILATERAL	>10 YRS	1	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
560	63	FEMALE	1168867	HOUSEWIFE	24.9	OA	BILATERAL	2-5 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
561	56	FEMALE	1131118	HOUSEWIFE	24.9	OA	BILATERAL	1-2 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
562	64	FEMALE	1173744	RETIRED	24.9	OA	BILATERAL	1-2 YRS	1	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
563	56	FEMALE	1174685	HOUSEWIFE	24.9	OA	LEFT	5-10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
564	65	MALE	870735	FARMER	24.9	OA	RIGHT	2-5 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
565	54	MALE	917203	FARMER	24.9	OA	BILATERAL	5-10 YRS	1	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
566	57	FEMALE	1175575	HOUSEWIFE	24.9	OA	BILATERAL	>10 YRS	1	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
567	72	MALE	1174944	RETIRED	24.9	OA	BILATERAL	5-10 YRS	1	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
568	57	MALE	1174034	FARMER	24.9	OA	LEFT	2-5 YRS	1	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
569	72	FEMALE	978705	DEPENDENT	24.9	OA	RIGHT	5-10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
570	73	FEMALE	1177981	RETIRED	24.9	OA	BILATERAL	1-2 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
571	53	FEMALE	491918	HOUSEWIFE	24.9	OA	BILATERAL	>10 YRS	1	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
572	58	FEMALE	1179464	HOUSEWIFE	24.9	OA	RIGHT	1-2 YRS	2	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
573	64	FEMALE	1181812	DEPENDENT	24.9	OA	BILATERAL	5-10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
574	70	FEMALE	1181715	HOUSEWIFE	24.9	OA	BILATERAL	5-10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
575	67	FEMALE	1182769	HOUSEWIFE	24.9	OA	BILATERAL	>10 YRS	2	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
576	72	MALE	983630	HOUSEWIFE	24.9	OA	LEFT	5-10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
577	65	FEMALE	1186166	HOUSEWIFE	24.9	OA	RIGHT	5-10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
578	65	FEMALE	1186353	HOUSEWIFE	24.9	OA	BILATERAL	1-2 YRS	1	NO	7	NONE	YES	PNEUMONIA	MEDICAL	UNPLANNED	1 MONTH	10 DAYS	I/V ANTIBIOTICS	YES	YES	YES	CONTINOUS FEVER
579	66	FEMALE	1186435	DEPENDENT	24.9	OA	RIGHT	2-5 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
580	72	FEMALE	1182989	HOUSEWIFE	24.9	OA	BILATERAL	2-5 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
581	66	FEMALE	142266	HOUSEWIFE	24.9	OA	LEFT	2-5 YRS	2	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
582	63	FEMALE	1186918	HOUSEWIFE	24.9	OA	BILATERAL	2-5 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
583	58	FEMALE	1187693	RETIRED	24.9	OA	BILATERAL	2-5 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
584	62	FEMALE	766061	HOUSEWIFE	24.9	OA	LEFT	>10 YRS	1	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
585	70	FEMALE	1189670	HOUSEWIFE	24.9	OA	RIGHT	1-2 YRS	2	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE

S. NO	Age (yrs)	Gender	MRD No	Occupation	BMI	Diagnosis	Knee Involved	Duration of complaints	Charlson Comorbidity Index	Mortality	Length of stay (days)	COMPLICATIONS AFTER TKA	READMISSION	REASON FOR READMISSION	WAS REASON FOR READMISSION VISIT WAS MEDICAL OR SURGICAL	READMISSION WAS PLANNED OR UNPLANNED	TIME OF READMISSION AFTER TKA	LENGTH OF STAY IN HOSPITAL	TREATMENT GIVEN DURING READMISSION	UNPLANNED VISIT TO HOSPITAL	UNPLANNED VISIT AFTER TKA ON 30 DAYS FOLLOW UP	UNPLANNED VISIT AFTER TKA ON 90 DAYS FOLLOW UP	REASON FOR UNPLANNED VISIT
586	56	MALE	1135084	RETIRED	24.9	OA	LEFT	5-10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
587	53	FEMALE	265075	HOUSEWIFE	24.9	OA	BILATERAL	1-2 YRS	2	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
588	61	FEMALE	906621	HOUSEWIFE	24.9	OA	BILATERAL	>10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
589	70	FEMALE	1186656	HOUSEWIFE	24.9	OA	BILATERAL	5-10 YRS	3	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
590	47	FEMALE	1112573	HOUSEWIFE	24.9	OA	LEFT	5-10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
591	64	FEMALE	381078	HOUSEWIFE	24.9	OA	BILATERAL	2-5 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
592	53	FEMALE	1196638	HOUSEWIFE	24.9	OA	BILATERAL	>10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
593	66	FEMALE	1199402	HOUSEWIFE	24.9	OA	LEFT	5-10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
594	59	FEMALE	363700	HOUSEWIFE	24.9	OA	BILATERAL	>10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
595	60	FEMALE	1202402	HOUSEWIFE	24.9	OA	LEFT	1-2 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
596	65	FEMALE	145333	DEPENDENT	24.9	OA	LEFT	>10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
597	80	MALE	1205052	DEPENDENT	24.9	OA	RIGHT	5-10 YRS	1	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
598	78	FEMALE	1205070	RETIRED	24.9	OA	RIGHT	>10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
599	68	FEMALE	1206285	RETIRED	24.9	OA	BILATERAL	5-10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
600	75	MALE	1209091	DEPENDENT	24.9	OA	BILATERAL	>10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
601	68	MALE	1210246	RETIRED	24.9	OA	LEFT	1-2 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
602	85	MALE	498823	DEPENDENT	24.9	OA	RIGHT	>10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
603	63	FEMALE	1208721	DEPENDENT	24.9	OA	RIGHT	5-10 YRS	1	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
604	62	FEMALE	1212453	HOUSEWIFE	24.9	OA	LEFT	>10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
605	75	FEMALE	118840	HOUSEWIFE	24.9	OA	RIGHT	1-2 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
606	62	MALE	1213753	RETIRED	24.9	OA	LEFT	5-10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
607	48	FEMALE	1215131	HOUSEWIFE	24.9	OA	LEFT	2-5 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
608	64	FEMALE	1216745	RETIRED	24.9	OA	BILATERAL	5-10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
609	60	FEMALE	1143090	HOUSEWIFE	24.9	OA	BILATERAL	>10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
610	60	FEMALE	1215837	DEPENDENT	24.9	OA	BILATERAL	1-2 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
611	69	FEMALE	1218286	DEPENDENT	24.9	OA	BILATERAL	5-10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
612	53	FEMALE	1221871	HOUSEWIFE	24.9	OA	BILATERAL	5-10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
613	71	MALE	24991	RETIRED	24.9	OA	BILATERAL	>10 YRS	2	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
614	53	MALE	1225708	BUSSINESSMAN	24.9	OA	BILATERAL	1-2 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
615	61	FEMALE	1227842	HOUSEWIFE	24.9	OA	BILATERAL	2-5 YRS	1	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
616	61	MALE	1130063	RETIRED	24.9	OA	RIGHT	5-10 YRS	0	NO	6	NONE	YES	SOFT TISSUE INJURY OVER KNEE	SURGICAL	UNPLANNED	3 MONTHS	1 DAY	DEBRIDEMENT AND VAC APPLICATION	YES	NO	YES	WOUND OVER KNEE WITH DISCHARGE
617	55	MALE	1231036	DEPENDENT	24.9	OA	RIGHT	5-10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
618	62	FEMALE	1237888	HOUSEWIFE	24.9	OA	BILATERAL	2-5 YRS	1	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
619	66	FEMALE	1092253	DEPENDENT	24.9	OA	BILATERAL	>10 YRS	4	NO	7	NONE	YES	REPEATED STROKE	MEDICAL	UNPLANNED	2 WEEKS	15 DAYS	ANTICOAGULANTS AND THROMBOLYTRICS	YES	YES	YES	WEAKNESS OF LEFT UPPER AND LOWER LIMB
620	53	MALE	1241350	SHOPKEPPER	24.9	OA	BILATERAL	5-10 YRS	1	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
621	71	MALE	1238962	RETIRED	24.9	OA	RIGHT	2-5 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
622	50	FEMALE	1246530	HOUSEWIFE	24.9	OA	BILATERAL	1-2 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
623	75	FEMALE	1252241	DEPENDENT	24.9	OA	LEFT	5-10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
624	67	MALE	1252176	HOUSEWIFE	24.9	OA	RIGHT	>10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
625	54	FEMALE	797412	HOUSEWIFE	24.9	OA	RIGHT	2-5 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
626	66	FEMALE	1252197	HOUSEWIFE	24.9	OA	RIGHT	5-10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
627	68	FEMALE	1254942	RETIRED	24.9	OA	RIGHT	2-5 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
628	57	MALE	305988	FARMER	24.9	OA	BILATERAL	>10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
629	51	FEMALE	1257353	HOUSEWIFE	24.9	OA	RIGHT	2-5 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
630	48	FEMALE	1251004	HOUSEWIFE	24.9	OA	BILATERAL	2-5 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
631	75	MALE	1256832	RETIRED	24.9	OA	BILATERAL	5-10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
632	53	FEMALE	1256692	HOUSEWIFE	24.9	OA	BILATERAL	>10 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
633	59	FEMALE	967165	HOUSEWIFE	24.9	OA	BILATERAL	1-2 YRS	0	NO	7	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE
634	57	FEMALE	1260703	HOUSEWIFE	24.9	OA	RIGHT	5-10 YRS	0	NO	6	NONE	NO	NONE	NONE	NONE	NA	NA	NONE	NO	NO	NO	NONE

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The Principal,
DMC, Ludhiana.

Subject: **Approval of Plan of Thesis.**

This is to inform you that the Faculty of Medical Sciences in its meeting held on 29.10.2021 has approved the plan of thesis of **Tushar Jethi**, a student of your college for **MS Orthopaedics** along with the names of Supervisor/Co-Supervisor as under:-

Topic Plan of Thesis
To study readmission rates and early complications in patients undergoing total knee arthoplasty.

Supervisor
Dr. Deepak Jain
Prof.,
Dept. of Orthopaedics,
DMCH, Ludhiana.

Co-Supervisor

Dr. Rajnish Garg
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The student has to submit the four copies of thesis (along with PDF format) , to the Controller of Examinations, BFUHS, Faridkot, at least six months before the commencement of theory examination, if he/she is otherwise eligible to take the examination. He /She must directed to attach a photocopy of this letter with the forwarding letter while submitting thesis to the University along with the letter of approval of University for change of supervisor/Co-Supervisor, change of topic,(if any).

Dr. S P Singh MS(Oph)
Controller of Examinations

Note :

147. If any discrepancy found regarding topic of thesis or Supervisor/Co-Supervisor, inform undersigned within one month after issue of this letter.

148. The student may submit the thesis as per the schedule already conveyed i.e for May/June examination 30th Nov of the preceding the year of examination and for Nov/Dec examinations 31st May of the year of examination.

TO STUDY READMISSION RATES AND EARLY COMPLICATIONS IN PATIENTS UNDERGOING TOTAL KNEE ARTHOPLASTY

THESIS PROPOSAL

FOR APPROVAL OF SUBJECT OF THESIS TO BE SUBMITTED

IN PARTIAL FULFILMENT OF THE REQUIREMENTS

FOR THE DEGREE OF

MASTER OF SURGERY

IN

ORTHOPAEDICS

OF THE

BABA FARID UNIVERSITY OF HEALTH SCIENCES

FARIDKOT

MARCH 2021

DR. TUSHAR JETHI

DEPARTMENT OF ORTHOPAEDICS
DAYANAND MEDICAL COLLEGE AND HOSPITAL
LUDHIANA

ABSTRACT OF PLAN OF THESIS

Title	TO STUDY READMISSION RATES AND EARLY COMPLICATIONS IN PATIENTS UNDERGOING TOTAL KNEE ARTHOPLASTY
For the degree of	M.S. Orthopedics
Name of the candidate	Dr. Tushar Jethi
Supervisor	Dr. Deepak Jain, Professor, Department of Orthopedics, DMC&H Ludhiana
Co-supervisor	Dr. Rajnish Garg, Professor & Head, Department of Orthopedics, DMC&H Ludhiana
Institution	Dayanand Medical College & Hospital, Ludhiana
University	Baba Farid University of Health Sciences, Faridkot

Introduction: Total knee arthroplasty (TKA) is one of the most common and successful surgical interventions, providing substantial relief from pain and improvement in functional disability in patients with knee arthritis. There is an increase in number of patients undergoing total knee arthroplasty as well as trend towards shorter length of stay and TKA in patients with higher risk profile. Readmission rate may be higher in these patients. Readmission rates are calculated at 30 days and 90 days and are indicator of efficacy of health care provided during TKA. Study also need to detect the post operative complication after total knee arthroplasty

Aim of Study: To calculate rate of readmission in patients undergone total knee arthroplasty, to know early complications in patient undergoing TKA, to analyze the different causes of readmission in patients after total knee arthroplasty surgery

Materials & methods: It will be a retrospective and prospective study including all the cases undergoing primary TKA from 1 Jan 2017 till 28th February 2022 to calculate readmission rates and know the causes of readmission in TKA patients. Both in-patient and out-patient hospital records will be retrieved and patient interviews will be done.

Clinical Significance: The readmission rate will be calculated as 30 days and 90 days .It will help to identify modifiable and nonmodifiable risk factors and different medical and surgical complications causing readmission after TKA. Studying the risk factors will help to identify different preventable causes of readmission in total knee arthroplasty. Understanding of risk factors for readmission following joint arthroplasty will help clinicians to better understand the postoperative course of their patients.

Keywords: TKA: Total knee arthroplasty, readmission rate, complications

(Signature) Candidate

(Signature) Co-supervisor

(Signature) Supervisor

(Signature) Principal

CERTIFICATE OF FACILITIES AVAILABLE

This is to certify that the facilities for work on the subject of thesis titled **"TO STUDY READMISSION RATES AND EARLY COMPLICATIONS IN PATIENTS UNDERGOING TOTAL KNEE ARTHOPLASTY"** exist in the Department of Orthopedics, DMC&H, Ludhiana and will be provided to be candidate. We will see that the data being included in the thesis are genuine and is collected by the candidate himself under our supervision and guidance.

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APPROVAL PROFORMA
BY RESEARCH & ETHICAL COMMITTEE
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Likely date of appearing in PG examination	MAY 2023
Date of enrollment	30 JUNE 2020
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Signature of Members of Research Committee with Stamp	**Signature of Members of Ethics Committee with Stamp**
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Approved: Yes / No

Dr. Sandeep Puri
Chairperson
Research Committee

Approved: Yes / ~~No~~

Prof. Arvind Malhotra
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BABA FARID UNIVERSITY OF HEALTH SCIENCES, FARIDKOT

PROFORMA FOR REGISTRATION OF SUBJECT FOR DISSERTATION

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3	COURSE OF STUDY AND SUBJECT	MASTER OF SURGERY IN ORTHOPEDICS
4	DATE OF ADMISSION OF COURSE	25 JULY 2020
5	TITLE OF THE TOPIC	TO STUDY READMISSION RATES AND EARLY COMPLICATIONS IN PATIENTS UNDERGOING TOTAL KNEE ARTHOPLASTY

6. BRIEF RESUME OF THE INTENDED WORK

6.1 NEED FOR THE STUDY

Osteoarthritis of the knee is a relatively common condition affecting approximately 10% of the general population above the age of 55 years.[1] The increased life expectancy and the tendency for obesity in younger individuals have led to increased prevalence of the symptomatic knee osteoarthritis with broad variation among different population. There is no permanent cure but the prevailing treatment is aimed at reducing pain and improving joint function. The diagnosis is made clinically and then confirmed radiologically. Management is on individual basis and requires combination of treatment options, which varies from non-pharmacological, pharmacological, surgery and arthroscopic debridement and lavage.[2] TKA is surgical procedure re-surfacing the damaged knee with an artificial joint or prosthesis. TKA providing substantial relief from pain and improvement in functional disability in patients with knee arthritis.[3]

Complications occurring after TKA include thromboembolism which is one of the most significant complications after TKA is the development of deep venous thrombosis (DVT), possibly resulting in life-threatening pulmonary embolism (PE) whereas Infection is one of the most dreaded complications affecting TKA patients, with reported frequencies of 2% to 3% in several large series. Complications like patellofemoral complications which include patellofemoral instability, patellar fracture, patellar component failure, patellar component loosening, patellar clunk syndrome, and extensor mechanism rupture. Neurovascular complications like arterial compromise after TKA is a rare but devastating complication that occurs in 0.03% to 0.2% of patients, with 25% resulting in amputation. Periprosthetic fractures like supracondylar fractures of the femur occur infrequently after TKA (0.3% to 2%).[4]

As there is increase rate of patients undergoing total knee arthroplasty readmission rate has increased, studying the risk factors help us identify different preventable causes of readmission in total knee

arthroplasty. In population of TKA recipients, an understanding of risk factor for readmission following joint arthroplasty helps clinicians to better understand the postoperative course of their patients. Knowing potential risks which require specific mitigation and how to identify patients with the highest risk of readmission, will improve the effectiveness and efficiency of care.[5]

Causes for readmission tend to be either medical or surgical**.** Early (0–30 days) readmissions are the result of medical causes in 40% of cases and surgical causes in 60% of cases. The most common medical-related reasons reported for readmission are atrial fibrillation, myocardial infarction, pneumonia. The most common surgical-related reasons for readmission are SSI and cellulitis. Late readmissions (61–90 days) are predominantly surgical-related with most readmissions being for treatment of arthrofibrosis.[6]

The main causes of readmission after TKA are medical or surgical including infection, DVT, and arthrofibrosis that increase risk for readmission after TKA surgery. Although infection rates post-surgery following TKA are relatively low at 0.65% in the hospital and 0.41% after discharge, in which postsurgical and post-traumatic infections are among the top causes for readmission to hospital after TKA. Rates of DVT among patients after TKA surgery have been reported to be approximately 0.45%. Although this percentage may appear low, those who do develop DVT have significantly higher rates of mortality at 0.4% for TKA and 1.7% for THA, as well as LOS that is almost twice as long as those who do not develop DVT. Risk for readmission is increased for patients who have a history of transient ischemic attack or cerebrovascular accident, patients who are undergoing a revision TKA, those who had a longer hospital stay, and those who are female. Patients who discharge to inpatient rehabilitation or a skilled nursing facility after leaving the acute care setting have more than 40% higher odds to be readmitted to hospital in the months following TKA surgery. The largest increases for readmittance to hospital were found in the first 30 days after surgery, indicating that patients are at the greatest

risk for being readmitted to hospital in the early phase of post surgery. The hospital readmission may lead to other negative consequences, such as increased costs, exposure to bacteria that could cause hospital-acquired infections, and further functional declines. A 5%–8% readmission rate of patients after TKA that is reported in the literature is concerning. Good readmission may be an indication that patients were not thoroughly prepared for discharge after surgery and that they may not have fully understood discharge instructions and guidelines for the postoperative phase that could have supported better postsurgical outcomes.[7]

There is a prominent trend towards reduced hospital length of stay (LOS) in TKA. Extending on this trend, there has also been increased utilization of TKA surgery on out-patient basis.[8] Short LOS is correlated with increased 30-day readmission rates but has not been proven uniformly through our own literature. There is limited literature associated on this topic in Indian population and this requires further research**.**

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6.2 REVIEW OF LITERATURE

Michele D'Apuzzo et al conducted a study and observed that in previous studies on readmission after total knee arthroplasty (TKA) a lack of information about the reasons for readmission, and the lack of stratification of readmissions according to co-morbidities. These limitations are important when studying readmission rates because an estimated 18% of patients are readmitted to a hospital other than the one at which they had the surgery and patients have different risks based on their co-morbidity profile.[9] The purpose of this study was to use a large database to determine (1) the frequency and (2) the risk factors for readmissions for all causes or for procedure-specific complications within 30 days after TKA as well as (3) the association between hospital volumes and readmission rates. The potential risk factors for readmission that we evaluated included demographic characteristics, co-morbidities, complications during the index procedure, length of the hospital stay, and discharge disposition, whether patients had undergone the TKA for osteoarthritis, inflammatory arthritis, or osteonecrosis did not affect the readmission risk. In contrast to all-cause readmissions, the risk of TKA-specific readmissions was decreased by a discharge to a rehabilitation center or "other" facility. Bilateral surgery was a risk factor for all-cause readmissions. TKA-specific readmissions is to be calculated by using charlson co-morbidity index or elixhauser co-morbidity measure.[10]

James R. Berstock, et al conducted a study on patients in which they observed worldwide temporal decline in 30 and 90-days mortality following TKA. Although causality cannot be determined, a possible explanation for this decline may be related to improvements in health care over the past 20 years.[11] For this trend toward decreasing mortality to continue, health-care providers will need to address the major cause of early postoperative mortality, identified as cardiovascular disease in their study. They also identify that there is an ongoing worldwide temporal decline in mortality following total knee arthroplasty. Improved patient selection, peri-operative care and a healthy population effect may account for this observation. Efforts to

further reduce mortality should be targeted primarily at reducing cardiovascular events following total knee arthroplasty.[12]

Adam M. Ali et al conducted a study and observed that Lower socioeconomic status was associated with an increased risk of readmission for all-cause and surgical readmission.

Unicompartmental arthroplasty was associated with a significantly lower risk of all types of readmissions when compared with TKA, with the effect being most pronounced for surgical readmissions. PFA was associated with a lower risk of all-cause and surgical readmissions but a higher risk of RTT readmission.

The number of emergency admissions in the preceding 12 months for any reason was a strong predictor of all types of readmission, being most pronounced for all-cause readmission. RTT during the index admission was a strong predictor of all types of readmission, in particular of readmission requiring further RTT. The risk of RTT readmission did not differ by primary diagnosis. Patients with rheumatoid arthritis had a lower risk of all-cause and surgical readmission. Patients with post-traumatic arthritis had an increased risk of surgical readmission. Increased length of stay was associated with increased risk of readmission. For all-cause and surgical readmission, length of stay less than 2 days was also associated with a significant increase in readmission risk.[13]

Daniel Gould et al conducted a study and observed the impact of specific medical co-morbidities on increasing the risk of 30-day readmission following TKA is quite well established. The following co-morbidities are strongly associated with readmission: Bleeding disorder, Diabetes, CKD and Dialysis, Chronic immunosuppressant use and History of cancer. Other significant co-morbidities include: Dementia, Depression, Hematological (coagulopathy and anemia),

Cardiovascular (atrial fibrillation, cardiovascular disease, coronary artery disease and congestive heart failure), Respiratory (chronic obstructive pulmonary disease) and Liver diseases, and Cerebrovascular accident or transient ischemic attack (but only in revision TKA patients).[14] The influence of variation in sex, age and

BMI each demonstrate a more complex pattern. Further research into the difference in readmission risk when revision TKA is compared to primary TKA, and bilateral TKA compared to unilateral TKA, will clarify the impact of these factors. A systematic review and meta-analysis is needed to quantify the impact of patient-related factors on readmission risk so clinicians can better understand their patients' likely post-operative course. This information is important for preoperative decision-making, enabling clinicians to optimize treatment plan for patients and adequately prepare for their post-operative recovery period in order to provide the most cost and clinically effective care.[15]

Claudia Fischer et al conducted a study and observed the methodological aspects that need to be considered when using the readmission rate as a measure for quality of hospital care for external purposes. They found that the validity of readmission rates as a quality indicator is influenced by the clinical process that is assessed, the indicator definition, the extend of case-mix correction, the effect of competing outcomes and the data reliability. Ignoring or poorly handling these aspects may lead to a biased estimation of the overall readmission rate and a biased comparison of readmission rates between hospitals.[16] As a result of variance in handling these methodological threats, studies on the validity of readmission rates as a quality indicator reach conflicting conclusions. They conclude that given limitations of readmission rates, that need to be used with caution as a measure of in-hospital quality, even more when used as a tool for a pay for performance scheme. Some of the discussed factors concerning the readmission rate in principle could be improved by investing resources in accurate data registry and refinements of indicator description. For instance, by using unique patient identifiers to follow patients across center that would help to avoid missing readmissions to other institutions. Another option would be to flag planned admissions, which are a part of the treatment plan or due to cancelled procedures, to measure just the quality-of-care related readmissions.[17]

Nicolas S. Piuzzi et al. conducted a study and observed patient-related risk factors were significant predictors of length of stay.[18] A longer length of stay was predicted by older age, higher body mass index (BMI), higher Charlson Co-morbidity Index, lower VR-12 MCS, and female sex. Despite patient-related factors such as age, sex, and co-morbidities providing substantial predictive value for length of stay after total knee arthroplasty, the main driving predictors of single-day length of stay after total knee arthroplasty were procedure or structural-related factors, including hospital site and surgeons. Understanding the risk factors that affect outcomes after total knee arthroplasty provides the opportunity to influence and potentially modify them favorably to optimize care.[19]

William W. Schairer BA et. al conducted a study on Total knee arthroplasty (TKA) and related interventions such as revision TKA and the treatment of infected TKAs are commonly performed procedures. They observed that hospital readmission rates are used to measure hospital performance, but risk factors (both medical and surgical) for readmission after TKA, revision TKA, and treatment for the infected TKA have not been well characterized.[20] Questions/purposes measured (1) the unplanned hospital readmission rate in primary TKA and revision TKA, including antibiotic-spacer staged revision TKA to treat infection. They also evaluated (2) the medical and surgical causes of readmission and (3) risk factors associated with unplanned hospital readmission.[21]

Victoria Avram et. al. conducted a study and showed in Given institutional pressures to reduce hospital length of stay (LOS) and hypothesized that “failure to cope” would be a significant factor for readmission following total joint arthroplasty (TJA).[22] In this study, A retrospective review of 4288 TJA patients was conducted to determine readmission rates and reasons for readmitting within 30 days of discharge. Ninety-five patients were readmitted. Leading diagnoses were surgical site infection (23.2%) and cardiovascular event (16.8%). Of readmits were readmitted for failure to cope, representing 0.1% of the sample. In multivariate analysis, increased age was a significant

predictor of readmission. Contrary to our hypothesis, failure to cope was not a leading diagnosis for readmission; concerns remain that early discharge may however correlate with increased readmit rates.[23]

Nicholas Yohe. et. al conducted a study Over 12, 026 patients out of which 422 (3.5%) experienced a major complication, 2316 (19.3%) experienced a minor complication, 2074 (17.2%) had a bleeding occurrence requiring transfusion, and 566 (4.7%) experienced an unplanned readmission.[24] Thirty-eight (0.3%) deaths were recorded. There were no significant risk factors for major complications. Patients with an American Society of Anesthesiologists, Patients older than 84 years, and patients receiving general anesthesia had increased risks of minor complications. Patients with a body mass index >30 and men had reduced rates of minor complications. Increased risk of unplanned readmission occurred in patients with chronic obstructive pulmonary disease and congestive heart failure. Increased risk of death was seen in patients with an ASA >2. Elderly patients undergoing TKA have high complication and readmission rates. Surgeons should convey these increased risk factors and rates of complications in elective TKAs to their elderly patients and work with primary care physicians to mitigate these risks.[25]

6.3 AIMS AND OBJECTIVES

AIM OF STUDY:

1) To study pattern of readmission in patients who undergoing primary TKA.

2) To study complications in patients undergoing primary TKA

7.0 MATERIALS AND METHODS

It will be a prospective and retrospective study including all the cases undergoing primary TKA from 1 Jan 2017 till 28th Feb 2022 with minimum follow up of 3 months.

7.1 SOURCE OF DATA

Patient will be contacted by either telephone or by personal interview. Hospital in-patient and outpatient records will be retrieved and performa will be filled.

7.2 METHOD OF COLLECTION OF DATA

Data collection and methods: it is a retrospective and prospective study with collection of data as per the Performa with consent from the patients admitted in the Orthopedics department, Dayanand Medical College and Hospital. Variables to be studied include:

- Time and reason of readmission
- length of stay
- Complications after TKA
- Hospital visits not requiring admission to the hospital

INCLUSION CRITERIA

- All patients undergoing primary TKA

EXCLUSION CRITERIA

- All patients undergoing revision TKA
- Patients not willing to participate in the study

Number of cases: From 1 January 2017 till 28th Feb 2022 qualifying the inclusion criteria

Outcome: Calculation of readmission rate at 30 days and 90 days

Statistical Analysis: Data will be described in terms of range; mean ±standard deviation (± SD), median, frequencies (number of cases) and relative frequencies (percentages) as appropriate. All statistical calculations will be done using (Statistical Package for the Social Science) SPSS 21version (SPSS Inc., Chicago, IL, USA) statistical program for Microsoft Windows

7.3 DOES THE STUDY REQUIRE ANY INVESTIGATIONS OR INTERVENTIONS TO BE CONDUCTED ON PATIENTS OR OTHER HUMANS OR ANIMALS? IF SO, PLEASE DESCRIBE BRIEFLY.

This study will review patients undergoing TKA who required readmission and /or surgical intervention.

7.4 HAS ETHICAL CLEARANCE BEEN OBTAINED FROM YOUR INSTITUTION IN CASE OF 7.3?

Yes

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PROFORMA

S.No. Date:

Name: Age/Sex:

MRD No. Admission no.

Father/Husband Name: Occupation of Self:

Weight: ____ kg Height: _____ cm BMI: ____

Diagnosis: OA / RA / Others

Date of TKA: date of discharge:

Duration of complaints: > 10 y/ 5 – 10 y/ 2 – 5 y / 1 – 2 y/ ≤1 years prior to TKA

Length of hospital stays for TKA:

Type of anesthesia given: regional / general anesthesia

If regional: nerve block/ epidural / spinal

Pre operative medications taken by patient:

If others :

ASA grading at admission:

Condition of patient at time of admission :	**yes**	**no**
A normally healthy patient		
A patient with mild systemic disease		
A patient with severe systemic disease that limits activity but is not incapacitating		
A patient with an incapacitating systemic disease that is a constant threat to life		
A moribund patient who is not expected to survive 24 h with or without treatment		

Post operative DVT prophylaxis regimen In hospital:

At discharge

Duration of intravenous antibiotics:

Signature of Candidate **Signature of Supervisor**

Post op physiotherapy status at discharge: walking independently / walking with stick / walking with walker / confined to bed

Associated Ailments: Charlson Co- Morbidity index

Renal disease/ Any malignancy/ Moderate liver disease/ Aids /HIV/ Metastatic solid tumour/ hemiplegia/ Diabetes with end organ damage/ Diabetes without end organ damage/ Mild liver disease/ Peptic ulcer disease/ Rheumatic disease/ Chronic pulmonary disease/ dementia/ Cerebrovascular disease/ Myocardial infarction/ Congestive heart failure/ Peripheral vascular disease

Other medical diseases:

Unplanned hospital visits after TKA: Y / N

If yes, reason for visit :

Does that hospital visit result in readmission: Y / N

If yes reason for readmission:

Readmission in hospital: Planned/ Unplanned

Time after TKA:

Length of stay in hospital:

Treatment given in the hospital:

Any surgical intervention:

Outcome:

Signature of Candidate

Signature of Supervisor

COMPLICATIONS :

	yes	no
Hematoma		
Major bleed		
Minor bleed		
Wound complication		
Venous thromboembolism / pulmonary embolism		
Deep prosthetic joint infection		

Any other complication:

Condition of patient at time of readmission :	**yes**	**no**
A normally healthy patient		
A patient with mild systemic disease		
A patient with severe systemic disease that limits activity but is not incapacitating		
A patient with an incapacitating systemic disease that is a constant threat to life		
A moribund patient who is not expected to survive 24 h with or without treatment		

Signature of Candidate **Signature of Supervisor**

INFORMED PATIENT CONSENT

Date: _____

I.....D/o,W/o,S/o.....

am willing to participate in the study **"TO STUDY READMISSION RATES AND EARLY COMPLICATIONS IN PATIENTS UNDERGOING TOTAL KNEE ARTHOPLASTY"** The procedure with its complications has been explained to me in local vernacular language. I have fully understood that no special tests and extra expenditure in any form, merely for the purpose of thesis is being carried out. I am free to opt out the study any time without assigning any reason.

.....
Signature of the Witness

Name:

.....
Signature of the patient

Signature of Candidate

Signature of Supervisor

मरीज अनुमति फार्म

तिथि _____

मैं _____ पत्नी/पुत्र/पुत्री _____

निवासी _____

इस शोधकार्य "**TO STUDY READMISSION RATES AND EARLY COMPLICATIONS IN PATIENTS UNDERGOING TOTAL KNEE ARTHOPLASTY**" में भाग लेने के लिए सहमत हूँ। मैं इस शोधकार्य में भाग लेने के लिए अपनी स्वेच्छा से तैयार हूँ। मैं पुष्टि करता/करती हूँ की यह स्वीकृति देने के लिए मुझे कोई आर्थिक प्रलोभन नहीं दिया गया और न ही दबाव डाला गया है। मुझे इस शोधकार्य का उद्देश्य स्पष्ट कर दिया गया है और मुझे यह विश्वास है की यह विज्ञान और मानवता के लाभ के लिए है। मुझे इस शोधकार्य में होने वाले जोखिम के बारे में समझा दिया गया है और मेरी समझ में यह जोखिम बहुत मामुली है।

मैं इस शोधकार्य में भाग लेने के सम्बन्ध में किसी भी समय अपनी अस्वीकृति व्यक्त कर सकता/सकती हूँ और मेरे अस्वीकृति व्यक्त करने का मेरे इलाज पर कोई प्रभाव नहीं पड़ेगा।

_____ _____

गवाह के हस्ताक्षर रोगी के हस्ताक्षर/अंगूठे का निशान

नाम: नाम:

_____

अन्वेषक के हस्ताक्षर

_____

विद्यार्थी के हस्ताक्षर

ਮਰੀਜ਼ ਰਜ਼ਾਮੰਦੀ ਫਾਰਮ

ਮਿਤੀ_____

ਮੈ_____ਪਤਨੀ/ਪੁੱਤਰ/ਪੁੱਤਰੀ_____

ਵਾਸੀ _____

"TO STUDY READMISSION RATES AND EARLY COMPLICATIONS IN PATIENTS UNDERGOING TOTAL KNEE ARTHOPLASTY" ਤੇ ਚਲ ਰਹੀ ਖੋਜ ਵਿਚ ਹਿੱਸਾ ਲੈਣ ਲਈ ਰਜ਼ਾਮੰਦ ਹਾਂ। ਇਸ ਖੋਜ ਕੰਮ ਵਿਚ ਹਿੱਸਾ ਲੈਣ ਲਈ ਮੈ ਆਪਣੀ ਮਰਜ਼ੀ ਨਾਲ ਤਿਆਰ ਹਾਂ। ਮੈ ਇਹ ਦਸਣਾ ਚਾਹੁੰਦਾ ਹਾਂ/ ਚਾਹੁੰਦੀ ਹਾਂ ਕੇ ਇਹ ਰਜ਼ਾਮੰਦੀ ਦੇਣ ਵਾਸਤੇ ਮੈਨੂ ਕਿਸੇ ਵੀ ਤਰਾਂ ਦਾ ਲੋਭ-ਲਾਲਚ ਨਹੀ ਦਿੱਤਾ ਗਿਆ ਅਤੇ ਨਾ ਹੀ ਕੋਈ ਦਬਾ ਪਾਇਆ ਗਿਆ ਹੈ। ਮੈਨੂ ਇਸ ਖੋਜ ਦਾ ਮਨੋਰਥ ਸਮਝਾ ਦਿੱਤਾ ਗਿਆ ਹੈ ਅਤੇ ਮੈਨੂ ਇਹ ਭਰੋਸਾ ਦਵਾਇਆ ਗਿਆ ਹੈ ਕੇ ਇਹ ਖੋਜ ਵਿਗਿਆਨ ਅਤੇ ਮਾਨਵਤਾ ਦੀ ਭਲਾਈ ਲਈ ਹੈ। ਮੈਨੂ ਇਸ ਖੋਜ ਵਿਚ ਹੋਣ ਵਾਲੇ ਖਤਰੇ ਬਾਰੇ ਸਮਝਾ ਦਿੱਤਾ ਗਿਆ ਹੈ ਅਤੇ ਮੈਨੂ ਇਹ ਯਕੀਨ ਹੈ ਕੇ ਇਹ ਖਤਰਾ ਬਹੁਤ ਮਾਮੂਲੀ ਹੈ। ਮੈਨੂ ਇਸ ਖੋਜ ਕੰਮ ਵਿਚ ਹਿੱਸਾ ਲੈਣ ਦਾ ਢੰਗ – ਤਰੀਕਾ ਸਮਝਾ ਦਿੱਤਾ ਗਿਆ ਹੈ।

ਮੈ ਇਸ ਖੋਜ ਕੰਮ ਵਿਚ ਹਿੱਸਾ ਲੈਣ ਬਾਰੇ ਆਪਣੀ ਰਜ਼ਾਮੰਦੀ ਕਿਸੇ ਵੀ ਸਮੇ ਵਾਪਸ ਲੈ ਸਕਦਾ ਹਾਂ/ ਸਕਦੀ ਹਾਂ ਅਤੇ ਮੇਰੀ ਰਜ਼ਾਮੰਦੀ ਵਾਪਸ ਲੈਣ ਦਾ ਮੇਰੇ ਇਲਾਜ ਤੇ ਕੋਈ ਅਸਰ ਨਹੀ ਹੋਵੇਗਾ।

_____
ਗਵਾਹ ਦੇ ਹਸਤਾਖਰ

_____
ਮਰੀਜ਼ ਦੇ ਹਸਤਾਖਰ

ਮਿਤੀ_____

ਮਿਤੀ_____

ਪਤਾ _____

ਪਤਾ _____

_____
ਨਿਰੀਖਕ ਦੇ ਹਸਤਾਖਰ

_____
ਸਿਖਿਆਰਥੀ ਦੇ ਹਸਤਾਖਰ